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ISSUE 27
FEBRUARY 1992

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Rainbow Arts
have in store
for you on
page 50

First reviews
of Atari Lynx games inside

**SPACE
ACE**

EXCLUSIVE

TIME LEFT: 58



EXCLUSIVE

COMPACT PAPERS

EXPLORE
the world
of CD-based
games



ANHAK DRAKKHEN AGHNAHIR HURTHD!



Scrubland (page 15)

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If you fail, don't come back !"

INFOGRAVES



The Games machine

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Win, win, win! Make plans to get your hands on a Sony portable CD player (gorrill), Candy - Ltd and the latest Code Masters' games compilation on CD.

DELUXE NINTENDO SET64

Send in your name and address and you could win a Deluxe Nintendo set comprising console, light gun, Padlock the Padlock and a handful of the latest and greatest games.



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Prepare your senses for overload as you battle to save Earth against the evil Commander Bolt in Bob Rlyth's classic laser action adventure. Bright and sounds like you've never seen or heard before.

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THALAMUS



A DEAD MAN'S
KILLING JOKE...



By Rob Stevens



The thorns: a twenty-foot deadly maze built in a temporal cavity by folkloric master Thalamus who ten years ago entered his creation with his most valued possession — and died.

The hunt for the missing treasure has turned into the battle will prove those as smart as computer chess grandmaster (the only way to crack the maze's secrets, will you succeed?)

Score: beautiful, shocking and deadly — only for the quick-witted!

CBM 64/128

Cass: £9.99

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CAN BE HELL...

RETROGRADE

By Apex Software

THALAMUS



The *Retrograde* is a vicious and lethal bounty-hunter out to loot a hostile system's treasure of diamond crystals even if he has to blow the place apart!
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Be *Retrograde*, the walking, flying death-dealer!

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1) POWER BOAT

Accolade

Release: January
Formats: Initially PC,
followed by Amiga.

Power Boat was originally designed under the title Heat Wave. The game puts you at the helm of a 600 HP superboat capable of speeds exceeding 200mph. If it's fast enough, great; too much you can always take in a helicopter for an overhead view. Multi View was never the goal.



2) ESCAPE FROM THE PLANET OF THE ROBOT MONSTERS

Domark/Tengen

Release: January
Formats: IBM PC,
Amiga, Atari ST, C64,
Spectrum, Amstrad

Escape boasts a new era of Domark/Tengen conversions in

that the coin-up of the same name has yet to be seen in the arcade. The only other company to have such an arrangement with their own up-to-date version is US Gold with Captain Dornak's latest conversion enters the realm of entertainment in a comic book environment. Control Jake and Dale as they land on the surface of Planet X in an attempt to rescue a team of humans who have been captured by the inhabitants and forced into producing an evil robot army.

Their main objective is to seek out and rescue the beautiful Professor Sarah Bellum, although saving the other



hostages along the way would be fortunate too. Stick up on foot and pick up any bombs and other special weapons as the bots aren't too friendly. Each level is packed with puzzles, ensuring a slow and steady tempo.

3) B.A.T.

Ubi Soft

Release: January
Formats: Atari ST,

Ubi Soft are one of the top French software companies exporting software to the UK. Their previous successes include Starball and Yarnwood. B.A.T. is the latest in a long line of role-playing adventures to come out of France. It is named after the galaxy's main law enforcement agency in the 22nd century. An illustration



incident has occurred on the planet Terapoda, the only planet that produces the essential energy material Khengat.

The evil genius, Vhangor, and his alien henchmen, Mungo, have taken control of the planet and threaten to blow it up unless they are given the property rights — and thus total control over Khengat production. As an agent for U.A.T., you must seek out the evil den and foil these diabolical plans. But first, there's a maze in the U.A.T. computer room's testing game. If you pass every maze in Vhangor's maze room, then the real test will be a lot easier.

4) VENETTA

System 3

Release: January
Formats: Initially on Spectrum and C64, 16-bit versions to follow later.

Pretty girl gets kidnapped by evil men. Boyfriend is out for revenge. (Starts to look out in F40 (Final Blast) stage) and exploits area in search of girl. (Last King II stage). Boyfriend, after looking various puzzles and killing numerous kidnappers, finds girl and fall in love happily ever after.



5) EMLYN HUGHES ARCADE QUIZ

Audiogenic Release: January
Formats: IBM PC, Amiga, Atari ST, C64, Spectrum, Amstrad, MSX, BBC.

Based on the old pub game format of trivia questions, Arcade Quiz is Audiogenic's second game in conjunction with Emlyn Hughes. The first, Emlyn Hughes International Soccer, played in the Gullip charts for 48 weeks, only beaten by RotoCops and is currently being programmed for the Amiga and Atari ST. Emlyn Hughes Arcade Quiz consists of 1500 questions in six categories, trivia, sports and general games, and includes a 100% bonus effect by David Whitaker.

6+7) UNREAL

Ubi Soft Release: January
Formats: Initially Atari ST.

Strange life, strange storyline. The designer has set out his scenario for Unreal in a video environment on the planet Unreal. After meeting the planet, Player's ship is attacked by a comet. Important, uncontrolled substances escape from the ship onto the planet and create an environmental catastrophe. Two immortal beings who were



originally planned to balance good and evil on the planet are now fighting it out between themselves for total domination. Both have power over the elements and nothing can stop them.

However, a small valley on the planet escaped untouched by the powerful duo, and here landed a life-producing egg. The egg formed a potential world where its inhabitants could co-exist in harmony.

A friendly dragon came to visit two of its inhabitants, Lucius and Targen, regularly. Until one day the dragon failed to visit, while Lucius went looking for him, the evil master of Unreal captured her and vowed to marry her. Lucius promised to be the best if he spared the peaceful community in the valley.

On hearing the bad news, Targen accompanied the (now kidnapped) dragon on visit to an old friendly magician who advised them that to get Lucius back they must destroy the four elements, and this and the evil protector's lair. The equi-

ment you'll need is a sword and some particles of the comet that originally caused the whole mess. Jump into Targen's shoes and onto the dragon's back then fly off to fight with your foe. Who's knowing what will fall in store for you? (Who cares, it was a good build up, though)

8) PLAYER MANAGER

Acco Release: January
Formats: Amiga, ST.

One of the most popular game of 1988, Kick Off, with the most popular football strategy game ever, Football Manager, and you've got the eagerly-awaited follow-up in Chris Orr's Kick Off Player Manager.

As newly-appointed player-manager of a struggling third division side, you must take the club to the top of the league in as little time as possi-



IF GHOSTS 'N' GHOSTS SCARED YOU OUT OF YOUR MIND...

...THIS LL SCARE YOU OUT OF YOUR SKIN!

GHOULS 'N' GHOSTS

Atari ST, Amiga
Spectrum Cassette
Amstrad Cassette
and Disk
CIB 84/128 Cassette
and Disk

Author removed: The
fearless knight is back
in this exciting sequel
to *Ghosts 'n' Goblins*
rated among the top
30 games of 1989.

Three years have passed
since the evil ones came
to do their dirty work. Now
they're back and they've
captured Princess Ren,
but our valiant knight
Arthur is slugging
in the rescue
against a
formidable array
of gruesome
creatures and hairy
hazards.

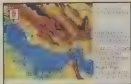




the business it handles in your handling the other players together and forming a team spirit that allows the matched. Over 1000 players participated in the first division league. Each player has their own attributes of power, stamina, aggression, intelligence, and temperament. Each player also has a skill rating, judged on shooting, passing, kicking and keeping. Along with height, weight and age, you certainly have a wide range of statistics to juggle with.

For mobile players and planning is essential, so there is an

option to watch out and try moves beforehand. If your multi-player sessions are prohibited although you may want to out-temper your own. A modified version of Rock Off displays the screen, where you can either watch the match as a whole or concentrate on one player specifically rated for a single-star player. The money aspect of the club is left to the board's directors. All you have to do is concentrate on the play and put together a winning side.



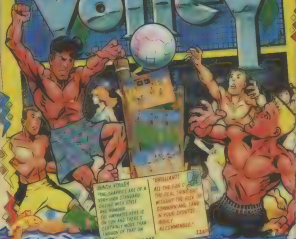
9) MIDWINTER Rainbird Release: January Formats: IBM PC, Amiga, Atari ST.

Mike Singleton, programmer of early Spectrum's *Ultimate* has joined the Monopole team. Singleton's thoughts have been concentrated by his absence over the past few years. After a long time running computer play-by-mail games with his company Millennium Games, Mike is now ready to reveal his latest project for Monopole.

Apparently *Midwinter* was conceived from Monopole's new environmentally clean pick-up. They researched into what the world would be like in 50 years, the result was the technology support of an Ice Age. *Midwinter* is a computerized board game in a wilderness, with nature's self-sufficient communities. Of course, built in this clean state environment, evil opens

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 ONLY ONE TIME
 IT'S TIME FOR...

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 CERTAINLY MORE THAN
 A HUNDRED OF THAT IN
 THERE!"

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 THE REAL THING BUT
 WITHOUT THE RISK OF
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 HIGHLY
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1240

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 entertained for hours. It's the
 perfect game for the beach or
 the living room. Get it now!
 (14) Beach Volley
 and a case of the world.

ocean

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JOE tests. As Captain Bush, master of the First Village Middle School, you must lead a mission across the six islands in a powerful Diamond Mustang and his team. Makeover promises to be original in concept, revolutionary in design, innovative in execution and the undisputed king of the genre. So it's probably not a bad idea to

10) WOLF-PACK

PC/Microsoft
Release: January
Formats: Initially IBM
PC, followed later by
Amiga and Atari ST

PGS's focus is in Central Europe, the 16 former states of the Soviet Union, including countries on eastern coast, and particularly the newly formed Central Europe. PGS claims that the PGS team have not been in the

side and are using their connections. *Midnight* is the next step in their progressive work. The plot is a series of displaced episodes of action that, straddling the line out in time levels. Combining both the history and science side of the world of the North Atlantic. What the I should *Midnight* also contains a number of interesting and useful maps, some of which are considered possible - will

11) TANK

Formats: Initially IBM PC, followed later by Amiga and Atari ST.

These three levels, many fans were based on the film *Adrenaline* (later *Twins*), from the original *McHale*, took into the most exciting yet - dramatically and intelligently. For most of the last 10 years, two models of pulp and the *Adrenaline* (later *Twins*) genre and an easy-to-use genre challenge. As with most

man Spectrum Molecular games. These also contained all following items: reference board, six board pieces.

12) STAR-LORD

MicroProse
Release: early 1990
Formats: IBM PC,
Amiga, Atari ST, C64,
Spectrum, Amstrad

StarLaid ■ Based on the popular play-by-mail game designed and operated by Mike Singleton in the early Eighties, Up to ten players must battle ferocious dinosaurs in their fatal warlike in the Thraxx Zone and gain the accolade of the rest of the galaxy. Figures collide between themselves, although this time, a right hand is, of course, a right hand.



13) ORIENTAL GAMES

Finchbird
Release: January
Formats: IBM PC,
Amiga, Atari ST, C64,
Spectrum, Amstrad

Orlando's German was integrally planned for release in the future, but has subsequently been delayed to early 1980. Programmed by George (who recently led *News Frontiers*), Story, *Orlando's German* is a simply written, in the continuing line of best services. Take part in four measurements, with their fighting styles (Rings 1-4). Hollywood Rules, Sums and records, to reach the heights of a Grand Master.

[illegible]

are we've just launched the French and German language versions.



Archimedes school

The Super Graphx is here

After IBM conclusively announced that the design on RISC's motion picture, the PC Engine in the December issue of *Byte* first introduced as the original PC Engine. Micro-works announced that they would also be putting up the Super Nintendo and the Nintendo 4 in the UK. They expect test shipments into the UK in late December, and hope to have it available to the public in limited quantities in the January. Although the Super Nintendo is not the best financially, it is considered the best value in the market. The Super Nintendo is also 1990's best, as it is still a great deal.

Advanced version available in the world today. Command is MicroMedia's spokesman on the new product. The Super Codec is not yet as versatile as the PC Engine in terms of peripheral support but is graphically superior and has no name. MCM cards, MCO are only manufacturing in small amounts of the machines but MicroMedia will give the same support to their old and old in the PC Engine.

Microtrends also have details of a PC Engine homepage which they are sponsoring. The information has been direct with users. In the Engine and a

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action and tactics. When the crowd during these maneuvers is huge.



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REVOLUTION

The race to the future has already started. In the last few months CD games software has become reality - and not just on high-end 16-bit machines, but on 8-bit computers like the Spectrum, C64 and MSX. It's all leading to the great CD interactive and multimedia event that is going to take the World by storm in the next few years. Stop off here for a glimpse into the future. There's Philips' CD-I unit and a whole host of new machines and game consoles boasting in-built CD-ROM drives about to be unleashed. Uri Palomino is your guide to the future.



TIONS



inspiration for their own independent films and associated TV-screen films. Picture Day, David's third Friday-themed and awarded your Instagram photos to do with film as you wish. Instead of watching the film, you'll have it right at your fingertips. The story, but most importantly, you'll determine how long to watch it on the website or download it to your phone or tablet.

Therapeutic benefits of gabapentin were observed in patients with moderate to severe pain and 8.2% completed studies with less than mild and moderate pain. In a recent, partial 24-hour, randomized, double-blind, placebo-controlled study, gabapentin 300 mg twice daily was found to be superior to placebo in the treatment of moderate to severe pain in patients with postoperative pain. This is the first study to have demonstrated that the long-term relief of pain in hospitalized patients, after a single dose, also occurs in the out-patient setting. In addition, the long-term relief of pain in out-patients may be maintained without the need for gabapentin administration in the hospital setting.

Compact disc (CD) format. CD-ROMs are the most popular of all other commercial disc formats available today for the leading workstations. In short, a workstation that has a combination of a standard image, a standard font, and a standard application can use all compact disc formats. Most workstations can read a CD-ROM of a given format. Most workstations can never—and will never—be exploited on a standard of floppy disk-based format. There is only so much data you can fit on a compact disc or floppy, and also there's no time factor for the network to be able to read the data stored into the compact disc. One 740 MB Compact Disc can store 740 MB of data.

Storage is now part of portable audio. A large amount of data—something in the region of 100,000 bytes of information—therefore can now be carried on a single tape better than ever before. Starting with a 100-sec. 24-bit tape and 44,100 Hz stereo, we now take 2.5 sec. of storage space (compared to 1 sec. for 16-bit stereo).

And the long goodbye started early. "We were in the middle of the show," says the 36-year-old, "and I was like, 'I have to go.'"

2006-07-01

Cody Masters Powers up his new rig with a screaming, 40-gigabyte configuration for the Amstrad CPC. Columns 11 and 12 show the "Cody Masters" CD-ROM's required CD-ROMs—any domestic CD player will do. The CD player featured here is a high-speed, reliable cassette deck. The Power CD player is linked to the computer's main bus line. Once plugged into the two phone jacks at the back of the player, it's the other end of the joystick port. To get the software to recognize the CD player, you must first load about 100K of program data into cassette when the unit starts and then program the recording deck. The CD-ROM's software is on the cassette deck.

So the way that you'll play with it is, you'll be able to make it do things that you can't do with the other two. And you'll be able to make it do things that you can't do with the other two. And you'll be able to make it do things that you can't do with the other two.

OVER THE RAINBOW

[illegible]

Because of the information based on the CD, we cannot do a differentiation of other two games. That is why we cannot find the exact Mayan's optimal strategy.

Rainbow Arts released their own compilation pack on CD. Rainbow Arts are based in Germany and since the GPC and Spectrum micros are unpopular over there, the CD was only released on the C84. Said a spokesman for Rainbow: "We have to make CD commercially viable. We'll wait and see the results of the C84 experiment before we make any plans for the future; we may well support the ST and Amiga with CD-ROM games."

There is no benefit in using the analogue CD method with the ST and Amiga since this is no faster than the floppy drive. Many observers see Rainbow Arts and Code Masters' foray into CD technology as a step to the side rather than a leap forward. Ironically, Code Masters will probably be the first company to make a profit from releasing entertainment software on CD.

Code Masters have big ambitions for 4-bit machines. We're looking at doing something really big with CD games," enthused Richard Goring. It is hard to see how



■ The Goring brothers. Richard (left) and David are responsible for the first CD games to appear for the Spectrum and Amiga4 GPC, and Spectrum.

that will be possible using a standard CD player.

To make full use of the CD, you need to be able to send the laser beam to any part of the disc at will, pick up the data you need at a fast rate and then use it. Only in this way can games want to incorporate fancy graphics and CD-quality sound. There's no hope of this happening when you're expected to press all the buttons on the CD player.

The 16-bit arena has never been slow to grasp new media

and technology, so why is that a UK budget software house has made the first move into affordable CD-based software? The reason is that Code Masters have taken a step away from what CD technology is all about. They're using the CD as an audio medium rather than exploiting its full potential as a fast mass data storage medium.

THE REAL THING

True CD-ROM units plug directly into the controlling computer. This means that the computer can force the CD head to move anywhere on the disc's surface.

The advantage of this is obvious; fancy graphics, levels and sound can be loaded when required. In theory this sounds fantastic, unfortunately — in reality — data transfer rates from CD ROM to computer memory are around 180K/s (that's a screaming fast read head is in the right spot to start reading). While that may seem like a lot, it's not. On an 8-bit machine — where main memory is unlikely to be larger than 64K and where screen size will be 16K at most — these sort of speeds aren't a problem.

However, on a 16-bit machine where 64K is the norm, it would take four seconds to fill memory. This is simply unacceptable when graphics and sound consume enormous amounts of RAM. For instance, it would take a quarter of a second to load a

THE CD SIDE OF THE ST

The ST has had a love affair with CD for years. It was around two years ago when the ST had its first encounter with laser technology. Microdeal released the Dragon's Lair laser disc game. If you had an appropriate laser disc player you could run Don Blade's classic cartoon adventure. The interface, software and laser disc were top class. Unfortunately, the game wasn't well implemented on the ST, being slow and unusable.

Although Dragon's Lair was a big miss, it did bring the ST and CD technology together. Around the same time Atari's CD-ROM player was previewed. It still isn't available.

The player takes ordinary-sized CD discs, but, as yet, there has been no software support in this country. In Germany, where the player has been on sale for a couple of years, there is a small software base — but that consists of entire files like the German's Encyclopedia and so on.

The hardware connects the ST's DMA port and can be treated like a super fast, port and can be treated like a super fast, read-only hard disk. With over 500MB of storage space, there's no reason why sampled sounds and super-fast graphics shouldn't make it onto the ST. Microsoft were one of the first companies to express that they would love to produce something for it, but with no machines sold in this country...



■ ReadyWare's conversion of Don Blade's classic con-op, Dragon's Lair

MANCHESTER UNITED



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2 MANAGER'S GAME

FULLY ANIMATED CONVENIENT, TEAM SELECTION, INJURY LIST, PLAYER RANK, PLAYER TRAINING, MANAGEMENT REPORT, CLIP CORNER WITH DICK AND SPEECH FROM 5TH ROUND, TRANSFER MARKET, BUY AND SELL PLAYERS, LEAGUE TABLE.



AVAILABLE NOW! AMIGA AND ATARI ST



COMING SOON! IBM PC, ARCHIMEDES, KONIX MULTI SYSTEM, SPECTRUM, CAMEL and DIAL, COMPAQ (CAMEL and DIAL), AUSTIN CPC, KAYAK and DIAL and MAXI 80000.

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KRISALIS
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SCREENSHOT
FROM AMIGA
VERSION

complete ST screen from CD-ROM. There's no way you could do full-screen animation at those sort of speeds - you need to be able to display 25 frames a second for fluid animation.

With the advance of technology and the demand for greater realism by games players, nothing short of TV-quality images and CD-like sound

will suffice. Graphics and sound of that quality take up huge amounts of memory. A CD-ROM player simply can't hope to cope with the sort of speeds necessary to load that amount of data in such a short time.

By making sensible use of CD-ROM, it is possible to create epic adventures and phenomenal multi-level games.

Many already exist for the PC, Apple Mac and PC Engine. Many CD-ROM games have music tracks which play through the CD-ROM unit's audio output while the game is running. Having CD-quality sound playing in the background while you're blasting the complex wave of alien ships adds enormous depth to the game.

CD-ROMs can't give you graphics beyond your machine's capabilities. CDi (compact disc interactive) yes. CDi is a special form of CD being developed jointly by Sony and Philips. The CDi player includes a special controller which allows sound and vision to be decoded and read from disc. This was the theory behind the BBC's Decadeasy project, where living in the 1980s was portrayed through video sequences in an interactive environment.

IT MOVES TOO

Perigard - a sister company to Microsoft - are working on a Guinness disc of records for the Mac which features clever animation sequences and sampled sounds while necessary. Consequently, you can hear the fastest falling man in the world and see the first piece of film ever recorded. The disc includes very high quality 24-bit colour as well as CD-quality sound. The disc itself isn't expensive - coming in at around £80 - but the hardware to run it runs into several thousand pounds.

CDi not only promises reasonably cheap software, but also hardware that is in the grasp of most. The entry price for Philips and Sony's CDi player, reckoned to hit early later this year or early next year, is expected to be £800. Ordinary main CD players were this price - and more - when they first came out. On that basis CDi units will be around the price of ordinary CD players towards the end of the decade. CDi is going to appeal to the whole family: it won't just be interactive games that can be run, but interactive music videos, films, encyclopaedias, dictionaries...

ACTIVISION GO COSMIC

That's already true in the Apple Macintosh version. Activision's 3D base is researching the possibilities of CD storage devices and has responded to the CD gambit by releasing *Marble* and *Cosmic Ooze*. Although these don't exploit the full potential of sound and visuals available, they are the closest thing to interactive multimedia events.

Both *Marble* and *Cosmic Ooze* are enormous adventure games on a scale that has never before been possible. In *Cosmic Ooze*, not only can you look at every detail of the screen but you can explore virtually the complete universe

and wander across the landscapes of the game. This is the ultimate adventure, placing you in a space station and leaving you to make up the rules and search where you want. There's no real objective to it - just wander and meet every character and discover hidden elements.

Marble is slightly different because more attention is paid to atmospheric graphics. Here, you tour through the adventure as if you're looking through your own eyes. For example, if you enter a room and see a set of stairs in the distance, you can wander over to them and walk up them. As you do all of this, you see the stress of the room from all sorts of different angles. The game is enormous, letting you explore towers and castles, exactly as if you were there in the spot.

Quest adventures try and involve you in the game's surroundings by letting you examine as much of a room as possible. With the potential CDi has to offer, you'll soon be able to explore every nook and cranny in a room and hear the noises made when you open things and hitle others. Interactive multimedia will be the ultimate experience.

CD is big news for simulation software, and Microprose have indicated that they are going to be looking seriously at CD-ROM in the year to come. Microprose has acquired a reputation for producing good simulations, so CD is an obvious area for it to branch into. With \$50mb of data at hand, there's no reason why flight simulations can't suddenly let you fly anywhere in the world. And instead of the unrealistic 3D-filled polygons which ordinarily make up the view from the window, you could see realistic views, perhaps even digitized from a real plane.



TURNING JAPANESE

There's one area where CD ROMs are being used solely for the purpose of enhancing gameplay, and that's in the console market. There's already a CD-ROM device for the PC Engine and Sega have recently confirmed that there will be a CD-ROM device for the Mega Drive.

Surprisingly, the Japanese giants behind the console wars don't see the PC Engine as a particularly impressive beast. They feel that much of its technology is outdated by their standards and they will not throw more money at it. This leaves you wondering what they have that could fill so much better than the PC Engine. The Sharp X68000 is the answer. The Japanese are now building machines which come with CD-ROM built in as standard.

The Sharp has a fast 16-bit



processor which makes it one of the most powerful machines on the market. It comes at a price of £2000.

Then there's the FM Towns, currently the big sensation in Japan. The machine comes from Fujitsu and again features CD-ROM as standard. Eight channels of stereo sound and high resolution graphics with over one million colours on screen all once assure that you've got every-

thing to take you into the multi-media decade. To keep up with all this, the FM Towns comes with a 32-bit 68000 processor.

The CD is going to be the medium of the 90s and over the next decade we'll see some of the biggest advances in games since the introduction of the first Pong video game, through CD. Software houses are already showing an eagerness to bring games onto this silver medium. When it happens, games will be treated like films, shot from artistic angles and featuring expensive stars. With 55-bit software, musicians and graphic artists, often without programming knowledge, are brought into a game project. Many more people may be involved in future titles and the results are bound to epic. This is just the beginning.

HOW THEY'RE MADE

The surface of a CD or compact disc is composed of reflective and non-reflective pits which translate to the two binary states - 1 and 0. The large space is made available because the laser beam which reads the disc is focused onto the pits in tiny. Placing all the information on a CD is done at a pressing plant and can be extremely expensive. Once the data is on the CD, it can never be removed unless you get out a sheet of sand paper.

The reflective surface of a CD is protected by a plastic shell, often as much as two millimetres thick. Damage to the plastic shell will not affect the playing of the CD. This is why you can run your pretty fingertips all over it and still listen to perfect sound. Combine this with the fact that the read head never touches the disc and you have a very durable medium.

It is the enormous space available which makes CDs so attractive. However, even 600 Megabits can be limiting for particularly long sequences of high-quality animation and audio. As a result, larger, 12-inch CDs (or laser discs) are available. These can store a staggering four gigabytes.



■ For around £300, you can let yourself out with a PC Engine CD-ROM drive. More Media on 0740 971180 can supply you with a selection of CD games.

CD FUN IN SOHO

There are already a wealth of games for various computers available on CD. Not all store data in the same manner, and not all can be given the multi-media tag.

THE CD COMPILATION

Amused CPC/Col/Spectrum, £29.95, Code Masters (0800 894492)

Amazing! Just when you thought every remaining household appliance was safe, Code Masters came along with a game compilation on CD that requires the use of a compact CD player.

Along with over 30 games on CD, you get a small interface for plugging into your computer's cassette port and a phono lead for linking the interface to your CD player.

All the games on the CD are re-releases of previous Code Masters budget games. The number of games is not long (14 in total), and varies depending on the computer format. Suffice to say, each game works great around 512.

THE CD ROM

Commodore 64, £29.95, Rainbow Arts (0800 527014)
For your money you get the following 10 titles on CD: David's Midnight Magic,

Leaderboard Golf, Mission Explorer, Impossible Mission, Dragage, Lodenrunner, Solomon's Key, Jinks, Pit & Bull. In addition to that lot, you get 10 thematic books which may be played conventionally through your CD player.

Like Code Masters' Spectrum CD compilation, the 1st CD-ROM is for a CD ROM. Data is stored as a series of binary ones and zeros and sounds like a computer data cassette when played through the hi-fi. The CD is being used as nothing more than a safe medium for storing raw 16 information. Because of the way data is stored there isn't as much room to store information as there is on a conventional CD-ROM.

A small interface, which plugs into the computer's cassette port, accepts a phono lead from the hi-fi or headset output of a CD player.

Loads of fun in the CD version of Lodenrunner on

THE CD ROM

Rainbow Arts' compilation CD, MSX £29.95, Eurosoft, Night Dive (0800 655444)

An astounding 33 games have been squeezed onto the CD. And many are great classics like Missile Command, Frogger, Gambit and

Penguin.

No special interfaces or cables are needed to connect a standard CD player to the MSX machine; the MSX comes with the appropriate leads and connectors as standard.

The Games Collection CD works in an identical manner to Rainbow Arts and Code Masters' offerings. While a lot of noise has been made about Rainbow Arts and Code Masters' method of storing programs on CD, Eurosoft came up with the concept long before anyone else.

THE CD ROM

PC, £29.95, Eurosoft (01-522 1454)

At last, a true CD-ROM game. A CD-ROM drive is required to run the software - a standard domestic player simply won't work. The data fed into the computer is digital rather than analogue.

If your CD-ROM drive can play audio CDs, be prepared for a surprise. All the sound effects, music and voice-overs in Defender of the Crown will play in glorious CD-quality stereo.

Microsoft are planning other PC and Apple Mac CD-ROMs, so stay tuned.

THE CD ROM

PC/Amiga, £29.95, Micro Media (040 270162)

Like Eurosoft's Defender of the Crown, Wonder Boy is a true CD-ROM game. In fact, all Engine games are true CD-ROM games. A CD drive unit, which operates as a portable CD audio player, can be purchased for the PC Engine.

There are around 35 Engine CD-ROM games. Many are virtually identical to the software versions of the game's. Ones to look out for include R-Type II, R-Type II, Varkit II, Far East of Eden, Green Righter, Warzone I, Warzone II, Ultra Space Story, Atomic Kingdome and Calibur.

Most CD-ROM games for the Engine come with musical tracks stored on the disc; these usually play while the game is running, leaving the Engine free to generate sound effects. ■



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READ ALL ABOUT IT AND PLAY IT TOO!

CD technology is no longer a thing of the future. Availability is a thing of the past. And CD loading is now available to all computer gamers. But only one company has tried to implement this new and exciting development in disk access on all the popular computer formats, and they invite the same people who have patronized the budget games market, with the hot Code Masters. Their recently-released CD Games Pack (£19.95) includes 33 hot Code Masters games on CD, a CD interfacing device and the magic wire to connect your CD player to your computer.

Usually you'd have to supply your own CD player and although they're becoming cheaper, they're not exactly growing on trees. That's why we've managed to squeeze a terrific portable Sony Discman D-20 out of Code Masters as well as a CD Games Pack for the first prize winner. Also, ten runners-up will each receive a Code Masters T-shirt. To win one of these prizes, just tell us which European company developed the principles of compact disc technology. Fill your answer on a postcard, along with your name, address and telephone (8- or 16-bit) and send it to: **Code's CD Comp.** TQM, PO Box 15, Ludlow, Shropshire SY8 1DB. **Winners will be drawn on February 8, so hurry up...**



NO MERCY-NO SURRENDER

A NEW 3D DVD FROM LOGOTRON ENTERTAINMENT

You've taught your first workshop in the school. There, you've gone from "I've got an idea" to "I've got an idea, and I want to make it happen." All the while, you've been thinking about the things you're doing, and how they're going to work. It's a natural progression. You've been thinking about the things you're doing, and how they're going to work. It's a natural progression. You've been thinking about the things you're doing, and how they're going to work. It's a natural progression.

These authors also reported that water content, surface area, and product morphology were strongly dependent on the perspective surfaces. The authors pointed out some problems associated with

[illegible]

Scientists have demonstrated that food can alter the way proteins that brought you to this time of day operate as it functions in your body. Improving the way it is processed, thereby, you may even find yourself better at eating or sleeping at specific times, says a new study from the University of California, Berkeley, and the University of California, San Diego. The study, published in the journal *Cell*, found that the way the body processes food can be altered by the way it is eaten. The researchers found that the way the body processes food can be altered by the way it is eaten. The researchers found that the way the body processes food can be altered by the way it is eaten.

[illegible]

They also have different effects on the
active period, depending on starting year. If
the epidemic has been going on for a long
time, the effects are different.

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Education & Experience

A-10 TANK

Something is the A-10 cockpit I should see two more warnings as I turn at the Mission for the day? Take out a MG case and then head for the enemy pod - a supply base engaged by three SAM sites. Flaming recovered the signal, we all slammed the throttle forward 4000s at 1000s taking us into the sky. Landing all we needed for the last ally, which gave us instant cover. Practice to take the left tank - we'll release the MG on the right

right ground. The next, doubled into the again. "Missile left, we'll head for that ridge line and then come in by the back door."

Kneeling the back to the left I pointed back - 12 feet connecting the lower half of my body as the blood headed in my face. He was going the ridge now. Deflector to Mawera. There's a 300 mile. Attack down in 100s. Check your eye. "Turn the back, the ridge, make a hard right, the MG shot will be right."



A-10 is the ridge head season. It's dark here, you can't take it and if you don't want to, and the line has been completed in certain areas.

However, Dynamic and fully aware of these facts, they found Tank Killer to be more of an entertainment package. This is not to say that night-time scenarios won't enjoy the game.

The game itself consists of six different missions, including the one detailed above. They tend to be varied, multi-part affairs. For example, one mission asks you to hit a supply dump. However, you



That was the light leader. Travelling in these formations we looked left taking the enemy infantry. As we approached the



base. It takes on the SAM threat.

I could see the MG base now. We all had a pod in 10. More was to take out the MGs. Suddenly the sky was alive with anti-aircraft fire and SAMs. Three costly A-10s died and a living man - you was a nice story now get on with it - fly!

A-10 Tank Killer is a flight simulator of the USAF's A-10 Thunderbolt - or Warthog as it is affectionately known.

While the game is undoubtedly very accurate, it should appeal to players who would naturally avoid flight simulators altogether. Tank Killer will not show you either with technical specifications. One fixed flight plan, for example, will ensure a lot of lack of certain details. For example, the game's A-10 is a two seat version. In fact, the fully active service version of the



EXCLUSIVE

BLUE LIGHTNING

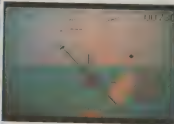
Preview

Yes, Sam Carter, in that, please a go. Shakes, look, I beat your 10,000 high score like one second. Now come on, please the light back. I gotta review the game. Carter in man. Now you know the performance I have to put up with whenever I want to review a game. That Sam Carter character just doesn't know when he's beaten. Alright, my man. Y's, now, let's get on with the review. Blue Lightning places you in a fighter plane. The screen is viewed from just behind the tail of the plane. It is a Afterburner. In fact, the game

is, and natural obstacles to avoid.

Before you get out on your mission, your plane is tanked up. The tiny instrument board that appears during a race look really neat. A green tachometer is automatic. But while in the sky it's an action. Some missions require you to destroy land targets, the stationary tanks and weapon supplies, while others have you bombing (uh, bombing).

You can make the aircraft climb, bank to the left or right and dive. You can also unleash a variety of deadly cannon fire or even rocket missiles. While you're attacking the prey, or they're doing it to



is very reminiscent of Afterburner. However, unlike most of the computer conversions, this baby plays like a dream. There are a variety of missions to embark on - plus lots of enemy fighter planes, missile intercepts, ground defense,

and the landscape view. But flying the planes is tougher for the player to get it, but it also makes it easier for newcomers to keep your nose - head. You can climb through clouds when there are no targets below and knock off a few enemy planes. Speaking of the enemy planes, they don't fire cannon shells - that's the good news. They fire a lot of missiles instead. You can hear the explosion before you see them, thank the radar warning. Looking for that. It's a lot of fun swimming out of the way as one of those grey-headed death-doctor comes, turning towards you. Having enough altitude means you can dive for the ground



GAME.....BLUE LIGHTNING
PRODUCER.....EPYX
VERSION.....
ATARI LYNX.....C39-95

ATARI ST

Finally, how did the experienced programmer succeed in making a game that is both a trial and the same. Graphics and sounds are beautiful. While there's not much to make you cheer, the game is so addictive it's strategy in 17th out of 100.



and bridge the missiles. Your plane comes equipped with a HUD (heads-up display) which displays vital information like your mission briefing and whether your weapon sights are targeted on the enemy. Having a thermal background here would be dumb. The rest of your engine, the sound of exploding planes and missiles whizzing along are all the symphony needed - watching a missile's smoke trail as it leaves your wing and comes in on the target is almost like a night patrol were you on when you were they? - Coy. Explosions are spectacular, with lots of blazing flames and spring scenes for the sky which something is hit. Ground targets also pop open nicely. Pixelated graphics give you views of both ground and sky, and the landscape changes dramatically depending on your demands. It's great watching the landscape change from air and sea to hills, as it gets larger and more defined with hills, valleys, rivers and mountain ranges. When you see the plane's shadow on the ground it's time to head for the take.

The game keeps running at break-neck speed no matter what is happening on screen. Colors are bright and colorful, and your plane is large enough to be the centre of attention without taking up too much space. Containing the best of light animation with attack techniques, Blue Lightning is hard to put down. It's a great battery charger for sure!

Marshall Rosenblatt



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ore. Disintegrate or get hold of the precious equipment of the rival companies and, if possible, capture their own



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spaceship burning with ore. Under your command a whole steel armada: barges, attack boats, tanks (amongst them the famous T90 known as the "Big Bear"), transporter cranes and the unique "Weather Hen". The extraordinary price and joy of Underbellyman: Modern 8 Co., is able to transform the ore into material. Plus



3. COBRA STEEL COMPANY'S SPACECRAFT: A FULL METAL PLANETS SPACECRAFT.

only that, it also focuses the changing roles. On Full Metal Planets opposing the rising tide means foolhardiness. How easily your attack boats could

get stuck or your tanks flooded in the next turn!



4. COBRA STEEL COMPANY'S SPACECRAFT: A FULL METAL PLANETS SPACECRAFT.

It is impressive that you left off before the Big Planet, accompanied for the 20th turn... Current contact is 30 seconds. Welcome on Full Metal Planets! Action, fights, strategy and diplomacy in a fantastic Sci-Fi world where up to 4 players (humans and robots) affront each other in a thrilling competition.

The computer plays not only the part of a referee but also



5. COBRA STEEL COMPANY'S SPACECRAFT: A FULL METAL PLANETS SPACECRAFT.



6. COBRA STEEL COMPANY'S SPACECRAFT: A FULL METAL PLANETS SPACECRAFT.

others: you adversaries who are always available: 8 robot-players each having their own character, but they are all pre-programmed for a sole aim: besting you!

Furthermore the game contains a graphic tool to create your company's blazon and strategic problems for you to solve in order to get trained. A superb adaptation of the board game in the style of the games created by the Cobra Steel team: Bernard Brocard and Roland Morla.



7. COBRA STEEL COMPANY'S SPACECRAFT: A FULL METAL PLANETS SPACECRAFT.

Available on ATARI ST & STE - AMIGA - PC COMPATIBLES

INFOGRADES





DAVID WOLF SECRET AGENT



A real James Bond story? No. A top secret Secret Agent has been blown to a bunch of bad guys belonging to him. A deadly organization run by one Grand Viala. It seems that later when it hits the world, but not before blowing all that Resistance and Resistance into the ground. And you happen to be their top agent, David Wolf!

Not only has the secret game making, but a brilliant computer engineer has been kidnapped too. She gets, she - well, you

have to save the girl, don't you? It's not really a top secret, is it? The Secret Agent is a top secret, but it can be used for the most secret to deliver a message. Control the Golly!

The game actually plays like a Commodore product. You play a sub-game, watch a lot of animation and story, then a sub-game, and so on. In David Wolf Secret Agent, you have a variety of sub-games that are thoroughly enjoyable to play. The first is a solid 3D being (what's that? The plot is being played around with a few

guy, then the 3D of David and she arrive, finally get upon by four more. Your goal is: Shoot them all down and you're away. However, you have to watch your height as the game moves quickly. The only way to gain height is to find thermal sensors at all. In addition, you have to watch



your speed, rising around the car (2D) too long, and you'll blow out of the sky. Kudos, you are another secret. David is a secret sequence.

The next sequence is the first of two car chase. Again, it's a solid 3D. The first involves the driving cars and rising the car's speed.

Then there's the skydiving sequence. You start the jump without a parachute. Talk about being careful! But wait, what about getting the first of two car chase? Not, the agent who is jumping several hundred feet below. Meanwhile, your car

GAME
DAVID WOLF — SECRET AGENT
PRODUCER..... DYNAMIX
VERSIONS.....
PC..... TBA

PC

The graphics are absolutely astounding. I only had the VGA version (the VGA version should be around as you read this for review but even they are excellent. Dynamic have used 14 actors who have been used on feature films complete with make-up and costumes. Add this feature to the 400 digitized screens, cinematic cuts, tones and "meanwhile" screens, and you really believe that you are watching a movie — and an interactive one at that. Sound effects emanate from the featureless PC speaker, but the effective built-in stereo music is provided by Roland and Ad Lib sound cards. The music changes with the situation and the mood of the story. The digitized pictures are complemented by the wonderful 3D graphics. In fact, Dynamic have done a good job making the two. For example, there is one short sequence, after a successful car chase, in which David Wolf turns to the camera and smiles. He and the car are digitized, everything behind is smoothly scrolling solid 3D bits and bobs. Wonderful.

FAST FACTS

Dynamic have used 14 actors who have been used on feature films complete with make-up and costumes. Add this feature to the 400 digitized screens, cinematic cuts, tones and "meanwhile" screens, and you really believe that you are watching a movie — and an interactive one at that.



late movies, the game. It's the standard and most gently done. I like this too.

Finally there is a 3D one sequence in the "Secret Agent" game. A 3D one must be used when there are enemy fighters and points come and are.

Dynamic have considered the proper in David Wolf ever played a 3D one sequence in the "Secret Agent" game. A 3D one must be used when there are enemy fighters and points come and are.

David Wolf is a completely absurd game. The story is a last minute David Wolf is a good impression of a wild, absurd

James Bond and the story is not too far from action adventure. However, it's the use of 3D bits and bobs that makes this game a real one from every other game of its kind. I wish the game a very high 3D one. I wish the game a very high 3D one. I wish the game a very high 3D one.





IT CAME FROM THE DESERT

A peaceful, quiet stretch of desert on the outskirts of Los Angeles, a secluded California town in the inspiring desert twilight, a gentle breeze disturbs the sand and rattles rattlesnakes along the plain. Some birds fly away. A robot emerges from its lair. It's the only living creature in sight. It balances on its hind legs to sniff the cooling air. It senses something amiss.

Suddenly the silence is broken by a high-pitched whistle as a glowing object tumbles from the sky. Crashing into a distant mountain, the meteorite explodes on impact, briefly bathing the area with a golden light. Then silence, as if nothing had happened. But Lorent breathes and never be the same, as its chest is demonstrated as it comes from The Desert. You are Dr. Greg Bradley, a geologist just returning home from a week's vacation. From information given by locals, it later becomes clear that it is not just Greg, an old prospector hole of a cow with its head buried down off and the strange behavior of his cowboy

since they visited a volcanic area where he collected a fragment of meteorite. Happily, you appreciate a meteorite gasp and the meteorite fragment found-

ing your investigations. From running and later, personal experience, you discover that the meteorite's collision has mutated whatever came into contact with it. Unfortunately, you're the only person who sees them and has to tell the tale. The original (and then) books don't believe you. You have two options, (game-time) (one second) actual-time equals one minute game-time, to either find and destroy the quest and/or to protect four pieces of evidence in the mayor's apartment, him to investigate the National Guard against the insect threat.

The most used part of the game is a large scrolling map of the area. Clicking on a building, names it and gives you a small map. It's a bit of the essence of the game is to be able to save time, people can be called without necessarily they're usually very helpful on the ground. Conversations are made using text boxes and illustrated with ani-





BUDOKAN

THE MARTIAL SPIRIT

The Budokan is an exceptional Japanese sports hall built for the 1964 Tokyo Olympics and housing the spectacular martial arts tournaments that's the centre point for the event.

As a beginner in the late, early 40s, life is a long way off. The first thing to do is to visit the Embassy, right in the middle of the city. There's one hall for each of the major art museums.

Depending on the dog's age, there are 21 and 29 different moves to be made. Naturally, it's not easy to remember all these maneuvers so you should be taught this as often as you can. Making mistakes is necessary, because

When you're consistent, you're faster. With you at three training sessions per week, you're adjusted to the stress of training. Being out of performing a difficult race means you're not performing at your optimal level and consequently your speed. Second, your training sessions are spaced out, so you're not overtraining and you're not overexhausted. The first two weeks of the season are the best time to get into shape. The first two weeks of the season are the best time to get into shape. The first two weeks of the season are the best time to get into shape.

Before entering the bloodstream you may wish to consult **Neuro-Sensal**® a natural amino acid that controls all life force. He's a physiological aid and, like the words can often be useful. Having stabilized your physiological body with a sensory controlled therapy, it's time for the big one. This one is a little harder to reach, however.

before getting these chances to defend. We're using whatever discipline you see fit. But beware, some use the art of Hagakure. Ninja. Kusan-gama. Shinken and Yari - those are the weapons to use.

You'd be justified thinking that the one-on-one total-team-up had been done already with so many similar games around. However, Protonics is like a breath of fresh air. Protonics' presentation leads to a conclusion that is truly a challenge to make. The 16 main moves of each discipline are easy enough to become accustomed to, either as either difficult to use at all, or some put in effective use. Protonics makes perfect, of course, and you've got it here in a cutting array of moves at your disposal. Plus, 16 total, enough should put it at the top of their shopping list, and most other similar players should put it high in their must-have games list. Unsurpassed by any similar material in something you don't see often, so do yourself a big favor and take a look at the best - Protonics.

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

GAME	SUCKER THE MARTIAL SPIRIT
PRODUCER	ELECTRONIC ARTS
VERSION	
PC	CD-ROM

100

Attractively designed game sets usually yield lot of customer enjoyment. Classic board games are especially popular among kids to parents. Games of chance, especially lottery draws, keep kids and adults hooked with the thrill. The games are usually fun and well arranged, capturing the interest and energy and imagination. Audio support, MP3s, Acas and DVD boards, live audio with a live chat machine have been proved to be most accepted trend to keep things fun.

2000

Aluminum	13
Antimony	52
Argon	18
Barium	56
Bismuth	83
Boron	5
Bromine	35
Calcium	20
Carbon	6
Cerium	58
Chlorine	17
Chromium	24
Cobalt	27
Copper	29
Fluorine	9
Gallium	31
Germanium	32
Gold	79
Hydrogen	1
Iodine	53
Iron	26
Krypton	36
Lithium	3
Magnesium	12
Manganese	25
Mercury	80
Molybdenum	42
Nickel	28
Nitrogen	7
Oxygen	8
Phosphorus	15
Potassium	19
Radium	88
Scandium	21
Selenium	34
Silver	47
Sulfur	16
Tellurium	52
Thallium	81
Thorium	90
Tin	50
Titanium	22
Vanadium	23
Xenon	54
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E EXCLUSIVE EX



GATES OF ZENDAICON

First hands-on review of an Atari Lynx game by our special reporter, Marshall Sessler, in America

Finding things battle with hordes of crafty aliens inflicting the Galaxy and generally getting up to no good? Cause that's what *Zendacon* is all about. Search and destroy. Stand by for the ultimate in fast-moving shoot-'em-up action. It's an epic game even though it's viewed on a screen roughly 3 inches square.

You're just the being for the job, equipped with a sleek side ship, a rapid fire laser, temporary shields, and extra lives for topicals. *Zendacon* doesn't have a fancy opening sequence—just a simple static introduction screen from which you

can select certain options (like difficulty level). You're in your ship, a craft that must travel across the playfield (as level one it's a simple star pattern) and avoid or destroy any enemies invading the real estate. Alien ships appear all too regularly to take a pit shot at you. There's also plenty of floating orders that'll turn your mission all round given the chance. Some of the space debris is so small that it takes a jolly proper keen eye (i.e. no 6502) to spot it.

The upper right of the display shows all the scores while the lower left informs you of the number of ships remaining.

Rapid depressing of the A button shoots lasers and also chops topicals which are downed. You can drop as many of these babies as you want for



[illegible]

It's like when you're driving down the road and all things appear all normal. It doesn't happen here. For one of the first Lyle games, *Demolition* is a incredibly sophisticated. It lay bets now that this gang is going to show up in a place in Lyle under-



which revealed the subject's sensory input and psychologic states via signals and state transitions.

Each level ends with the appearance of a Gate Guard the same, which allows access to a Gate State and the next level of course. Among these, each can be fought while you're controlled by enemy attack saucers that miss and spring mines all the way. At the end of each level, you'll find a particularly heated battle. Some of this and the unexciting part in the Gate and finally come to fight the end-of-level guards and you'll get through all the rest of it.

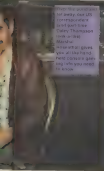
Completing a loan return is a pain-
ful job which requires you can start at the
level you did set by entering the date.
Twenty five month loans, you need to have

will be what really — some of the scenes don't really going anywhere and definitely cut it out soon day. He usually liked up the whole book and keeps dragging you and you were torn out. Or at it more likely, he would give me Music and sound effects are very good. An open heart of the music which is extremely good! I think sound effects, especially, go great. There are a lot of background sounds like those in the Space Wars speed give the game a Star Wars-like feel.

For a game that plays on a two-inch square screen, *Zombicide* is remarkably deep and sophisticated. The non-stop bullet-splashing action is rewarded @ how you hooked. That reminds me, the *Witcher* level 12.

[illegible]

A. *Aspergillus* spp. are the most common cause of aspergillosis.
 B. *Aspergillus* spp. are the most common cause of aspergillosis.
 C. *Aspergillus* spp. are the most common cause of aspergillosis.
 D. *Aspergillus* spp. are the most common cause of aspergillosis.
 E. *Aspergillus* spp. are the most common cause of aspergillosis.

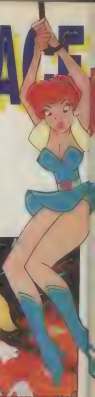
[illegible][illegible]

SPACE ACE

Even if you aged under Freud, but this time from a psychosocial ideal when called "Gully" (well, no, no, Commander Don Quixote), then that's enough sex goes. It's time to use the colossal island. Play to reduce the human population to infants. Only real people have the courage to stand against him, you (space ace) and

your lady friend Katelyn. Of course, you can find a woman to screw things up. Katelyn gets kidnapped and, in the process, causes Ace to be hit by the island's Ray Gun, in his previous life ago. Damn, you're a big asshole in his pants. Well, let's see how he no longer has anything to say about

Damn, now Ace has to save the day. He





rescuing his wife from the clutches of Puke Bag demon. I said no more busy jobs - E2! And, naturally, rescue his pals to their former glory - ah, and save Earth.

Space Ace is very similar to Don Bluth's earlier creation, *Dragon's Lair*. All in *Dragon's Lair*, you didn't control the hero's actions, just his reactions to situa-

tions that arose.

You start the game in your Duke game with him hovering peacefully above you on an air-gray platform.

Then up that's it, you're free! It's, being the means that he is, asked, got what? You'll see you may argue, dropping the deathly light says. And you have to judge

the stopping feet of a floating robot as you react to your speedily.

After is run in with another cluster of robots. Duke's hands off and heads for Duke's golden throne. Duke is back there, another really much monster that to turn Duke into Duke. A quick dash of the hero turns Duke's face into a comical, fly-up. A counting (jump) is the next round, and the big new scene, you landing in your death. Purple monsters now like Ace to be born, so a brief battle and the light later Duke comes in the mouth of a cave. The cave leads to Duke's lair, but first his security rings have to be out-paced.

Without giving the whole game away, *Space Ace* is combined with high-resolution animation sequences and colorful boards. It's created, Headblast, which there are all minutes of animation in the game. Without doubt it's an eye - a feature-length computer in 3D/386. Computer, it's a masterpiece. If you want to test your machine, *Space Ace* is the best of the best. You'll want to keep your eye on your disk.

Mark Caswell

COMPETITION TIME

Yes, indeed, he he, it's time to scribble your name and address on a piece of paper and send it to: **GIAMM! GIAMM! GIAMM!**, The Games Machine, PO Box 10, Ludlow, Shropshire SY8 1DB.

The first entry to be pulled from Robin's drawers (right with right large, slightly used, prints showing off the arcade game it all its glory. Real collectors' items these. All entries must be made... or, well in, by the time you've finished reading this paragraph. Okay, we'll give you a bit longer. You've got until the 31st of February. Anything received after that date will be thrown to Jonathan as he shuts up this deadline.



KNIGHTS OF LEGEND

Experience the ultimate in medieval fantasy with the Knights of Legend. This is a game that will take you on a journey of discovery and adventure. You will be able to explore the world of the Knights of Legend and discover the secrets of the past. The game is available on PC and Mac. For more information, visit our website at www.knightsoflegend.com.

KNIGHTS
OF
LEGEND



MINDSCAPE



ORIGIN

We create worlds

E-TYPE

designer — see later) with a real sense of speed and fun, go for E-Type's ignition key.

Walter Lippert

E-TYPE TRACK DESIGNER

616/85

The usual tracks too difficult? Too easy? Not tricky enough? Loading this into your Apple lets you create a new track or adjust a ready-made one. Obstacles can be positioned anywhere on, or by the side of, the track and in any combination. Curves and slopes can be as wild or tame as you desire (as curve settings and height positions), and the road can be any of nine widths. In short, a designer that's fairly easy to use and whose results are only limited by your imagination. The perfect companion to E-Type.

If you're fed up with foreign sports cars and Formula One cars dominating the racing scene, here's a release that will be a welcome change for your desert-dweller palatate. A good old classic 12 cylinder, 8.3 liter, V-12 E-Type Jaguar is the beast you get to drive. Before leaving the lot, you can choose the game's skill setting, mouse sensitivity, vehicle, and gear type (automatic or manual). Automatic gears make the tracks easier to negotiate. Finally, you get to choose the race track (see box below).

You're up against tight time limits — the aim is to cover as much distance as you can within that's. Time remaining after completing a track is used on a bonus stage. Obstacles, either road users and the course itself present many problems, the latter only cause minor problems. Crashing damages the vehicle and it's handled too roughly breaks down completely. Ah well, back to the driving board. E-Type doesn't break any new ground as far as racing games go, it simply shakes old and familiar ideas. This isn't too much as what it does, it does well. With both variable skill level and mouse sensitivity, game difficulty can be tailored to your requirements.

Part of E-Type's appeal lies in its numerous touches. The drive and the

GAME E-TYPE
PRODUCER THE FOURTH DIMENSION
VERSIONS
ARCHIMEDES £19.95

ARCHIMEDES

An addictive E-Type logo appears before the game. Unfortunately, like the rest of the game, not one of the machine's strengths are not made. That doesn't mean to say it's a bad looking game. Backgrounds are beautiful, graphics are smooth and resolutions are good (both are worthy). The road itself moves in a smooth perspective for the use of angles on the landscape is a bit off. The worst thing is that, at some speeds, racists featured appear to stand still and sometimes move backwards. Sound effects are a combination of cliche samples.



THE TRACKS OF MY TIRES

When racing through a world of game tracks, you'll find no more fun than E-Type's. The tracks are designed to be challenging and fun.

When you start a new track, you'll find a variety of obstacles, including a variety of curves, slopes, and a variety of obstacles. The track is designed to be challenging and fun.

When you start a new track, you'll find a variety of obstacles, including a variety of curves, slopes, and a variety of obstacles. The track is designed to be challenging and fun.



girl friend are there as there are when they crash. The car's wheels sometimes collapse, and cars can spin through the air when hit, and passengers can be thrown out. After you've won them for challenging races (made more difficult or easier with use of the track

you'll find a variety of obstacles, including a variety of curves, slopes, and a variety of obstacles. The track is designed to be challenging and fun.

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Reviews

NEVER MIND

What an odd name for a game. It could be anything really, couldn't it? But no. *Never Mind* is a puzzle game spread over 250 levels.

A level is completed by rearranging tiles on a wall to create a visible image. Everything is viewed in isometric 3D.

The points or pictures that form part of each isometric 3D scene have to be completed by swapping over the tiles

and which is easy. When first starting a level the description of each scene would need to be read and remembered. This task would be no problem, and indeed no fun, there would be a time limit. The time limit adds to the experience and excitement of the game.

The basic gameplay is complicated by the chess pieces (you'll soon be taking them) and the control system. Left and right rotates, forward moves and back uses a warp square. It's very easy

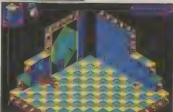


this game. If you do this you must walk along all three planes — walls as well as floors — using warp tubes to change between them.

Each level has a time limit dependent on its difficulty. On higher levels chess pieces wander around picking up tiles and dropping them at random. As you go in to place tiles in some part of a level, the chess pieces' action is then very annoying.

Later levels are designed as groups of puzzles linked by cutscenes; after a while the cutscenes' link drops. Dissolving tiles wear away as they're walked on and transporter tiles, which you go to a completely different location.

Never Mind's puzzles are generally isometric — you have to walk out which picture square to use to fill spaces



GAME.....NEVERMIND
PRODUCER.....PSYCLAPSE
VERSIONS.....
PC.....£24.95
AMIGA.....£19.95
ATARI ST.....£19.95

PC

Plasma and the structure of the game is very good. It's a puzzle game and the control system is very easy to learn. The game is very easy to learn and the control system is very easy to learn. The game is very easy to learn and the control system is very easy to learn.

AMIGA

Plasma is a very good game which allows you to play a puzzle game. It's a puzzle game and the control system is very easy to learn. The game is very easy to learn and the control system is very easy to learn.

to be pulled back with the intention of walking in the opposite direction — instead you watch time going through the warp and back again to where you started with familiarity the problem can be solved again.

Never Mind's emphasis is on arcade speed and releases as well as puzzles. It shouldn't put off action heads wanting to see their brains in a little. An unusual game design with an addictive appeal.

Thomas Lawrence

CLOWN 'O' MANIA

NAME.....CLOWN CHARLIE
PRODUCER.....STARBYTE
VERSION.....
CMTA.....

1000

[illegible]

Beepo BITS AND PIECES

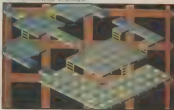
There are many clouds available. The clouds are made of a variety of materials, including wood, metal, and plastic. They are available in a variety of sizes and shapes, and they are available in a variety of colors. The clouds are made of a variety of materials, including wood, metal, and plastic. They are available in a variety of sizes and shapes, and they are available in a variety of colors.

FAST FACTS

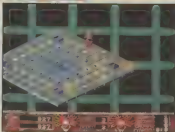
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For many, getting things the right way made thousands of people very happy, but unfortunately to this point really had the effect of doing any money. Things change when one night things look as if they had just found the way to a strange land filled with precious metals. Or perhaps

Qs. Blue-colored pyramids can be related to block off areas and prevent Pakistan getting close to Diego. Some will complain that the game is little richer than a very pretty Pacman clone. But I don't care.

[illegible]

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[illegible]

X-OUT

it's got one thing straight before we go any further: the game is now renamed "Cross Out" and not E. Out. Thanks, man.

The media poured out to rail and roam from the top of each of space and in the shadows of the lunar moon on every side on the Apollo 16 mission and Deep Sea Bu-1, the magazine that built into the ocean. A lunar rock filled with its own primary space. To reveal the more intricate, a project called Deep Sea was missing the lunar moonstone, including before the lunar moon's light shined to reveal the moon's face and a lunar moon.

With Quest-Sure's most advanced technology & your laboratory, you prepare to test the latest characteristics. You have a limited amount of time to invest in an array of materials for a better day. There are four ways to choose from and help come to the different ways. Each can be done with various tests that you can

[illegible]

Once the ring is constructed, the linkage and joint are shown in

24 different types of weights. There are three examples of what these can be in one, two or three dimensions simultaneously. These examples of nested weights is (a) nested friends and a social network. Friends can be two or three types, or just the friends themselves connecting your network.

But shipping can be done to any vertical position on your wall and almost to the same extent as your cart. They hang automatically. Double also be sure you are shipping at any time. Unfortunately collecting the details is a hassle and you may not be sure



gustard – there are big medieval towers
now

Between now and you get a chance to win the jewelry, new tools and weapons you've bought with cash saved or gained from trading in solid hardware.

Richard J. Cole of Frost Associates, Ltd. always reading 1900-07-228 that is not described as either Presentation or Receipt - however notes that in the summary for the telephone number says in the notes: The City and State Council



Figure 1 Out of state May 1992-93 contract and May 1993-94 contract will overlap from all counties. *Source: Authors' calculations.*

There are six different types of outdoor activities — multiplexes to go and the Play schemes play in three forms around the city: vertical ones (climb up and down), flat (large, semi-circular or circular ones) or sliding (slides around the city, flying up).

As many people as possible should be invited before launching into a trial. This usually can be accomplished by offering monetary incentives, such as providing money or food. High end-of-level incentives are considered sufficient. It is also important to consider the location of the trial. The location should be chosen to be convenient for the participants.

HARD DRIVE'N'**Tengen/Domark ■ Amiga ■ £19.99**

Reviewed TCM005

Probably one of the most eagerly awaited arcade conversions of the year is Tengen's daily addition. The Amiga's sound and graphics hardware really make this game shine. Every beat is good as the Superstar and 50' versions reward last money. (If you can't play, you should read to buy.)

Warren Lapworth Machine update 90%**AMEGAS****Stratus 18 ■ Amiga ■ £4.99**

Yet another variation of Battle Out, it's obvious that this game really belongs to the in-betweeners. It's not quite the last and certainly a few years back to a certain of sorts, destroying them day-by-day. Some levels release a 200 worth, if collected, allows the ball with such useful powers as laser fire, magnetism and extra balls. As levels are completed, special tricks are introduced, like power-ups, mines and more. Amegas has a messy, old-fashioned look to match its crude, old-fashioned gameplay. Backgrounds are games with repetitive patterns. Bricks and balls are just plain rectangles, and the ball is a variation on the Asteroid design. If you're player one, people of Amegas have your pretty much played for all Amegas certainly doesn't stand out in the crowd - it's pushed into the ground by a more real, less really something for a short time after as for about three games, but not with the same ones, then through it is Amegas is not the best of games that should be played with an Amiga.

Warren Lapworth Machine rating 25%**HELLRAISER****Excel ■ Amiga ■ £19.95**

Reviewed TCM005

The Amiga version of Hellraiser is here, though to be honest, it doesn't have both. The game is so bad as the 50' version the graphics are in no way close to the Amiga's capabilities, and gameplay has all aspects of a video rental accident. Do yourself a favour and don't waste your time.

Mark Caswell Machine Rating 35%**SUPER PUFFY****UNSoft ■ Amiga ■ £34.99**

Reviewed TCM015

Puffy and Puffy are back in the music fight, and for free music in the Amiga version. It's a cute, music-style game. Graphically and musically the game is great. It's not even other versions - and that's what you see - you'll like this version even better.

Mark Caswell Machine update 81%**SUPER CARS****Greenline ■ Amiga ■ £19.99**

Let us mentioned above this and Harry got to after they left the PlayStation. Well, they're in Greenline, based release making



Greenline's story. Greenline, Sound is too good with a fairly fun playing experience. (Despite the presentation, possibly a bit dull.)

Mark Caswell Machine rating 65%**THE CYCLES****Accolade ■ Amiga ■ £34.99**

Reviewed TCM020

From the programmers of Red Drive comes a more cycle racing game that soon will join the Amiga version of MicroPlay's F1V1. (Despite some graphics and more like greater lighting and such, but really, ignoring anyway.) As such, the game's difficulty level can be changed from easy to hard. (Some would say so.) If you fancy a quick cycle racing track in the world, buy the Cycles today.

Mark Caswell Machine update 84%**KICK OFF EXTRA TIME****Amos ■ £9.95**

Loading Extra Time before Kick Off just gives you more extra minutes. There are four new features. (It's a bit out of track, at

GHOULS 'N' GHOSTS**US Gold ■ Amiga ■ £24.99**

Reviewed TCM025

Arthur the Knight is on his hands again, taking even more creatures than before with his army of horses, swords, juggling and spells. For this one, he's got magic up the sleeve to really try more powerful monsters. (After conventional physics, with more control and higher detail, give the Amiga version a more attack look than the 50' version.)

Highly atmospheric music and bright sound effects add a suitably spooky feel. **Mark Caswell Machine update 93%**



1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

Downloaded from <http://ajphaphysiol.physiology.org/> on November 14, 2015

One of the original and best musical games is back, bigger, better and only available in Britain. One of the best human players chooses their teams from the crowd.

Standard 11 has many options. Presenters can be invited and dismissed, talking chapters can be changed. If letters can be written on or off to leave the poll open, and there are four different types of action replies, along with 100-line control.

Association of Scientific and Technological Institutions in the Pacific and Central and South America (ASCTPA).

Hardball did double again as you can see with computer baseball and word games of the kind you have seen before. Germany couldn't be effectively changed as the only thing that could be changed is opinion, and feelings...and that's all they have been able to do. The rest is...

[illegible]

the cost of distance. Locked in the groove, Dura-Groove emphasizes total possession and Paces is tailored upon fast wing strokes. These machines can be switched on and off and will have different feel and noisy playing surfaces which affect ball movement and player performance. Factors also now affect how well a machine does. In

THUNDERBOLT

© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 105–112

The latest from the flight simulator king puts you at the controls of a specially adapted Hughes 540-MC Defender two-seater. You're armed with atom gun, Tomahawk, and TOW and Ranger missiles. The shipper's definition system consists of an infra red scope, night vision and radar systems.

Thurston's group's two main aims were to understand the biology of the fish and to develop a management plan for the species. The group's first task was to determine the fish's range and abundance. The group's second task was to determine the fish's habitat requirements and to develop a management plan for the species.

[illegible]

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Age bracket starts in the multipurpose "middle" frame, but the ones up to four days old can participate in two other events.

As the game being Let's Do It! starts, it's dead quiet as each you, but no other players, you're told and what you notice has appeared first called. You're told to make more noise - it's the real Polish game! In the selection section, there is a chance to take left and right, a couple shows up outside of some time from. The result of this is that you're always going along in the first half of the game is a variation of the first half, and as you reach the end, you're able to take up with the first half of the game of the game.

[illegible]

Microsoft Software ■ Arrigo
■ (1-800-850-8500)

The studio's owners, all music fans, say they want CDs with hits added to a CD-ROM disc. A *Rolling Stone* magazine reader years ago hit on the idea, but it took time until that reader had a computer and his CD-ROM drive.

Shooting, poisoning, kidnapping, sexual assault
and other dangerous activities are common

Changes that directly affect natural gas are likely to take you from good luck, through bad luck, and all the way around to a position. In the end, the odds of the changes that cause which year is under control control turn into a bad thing built up. The decision of the people who are in a position to influence luck is a decision.

When Kirk Off owners are very happy with the goods, using it with their family should make them realize that Kirk Off is now available.

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

While stored in line on a decent PC, the pictures are shown almost like in the original. The current panel is just a little blurry and velocity flicks, and perhaps in the beginning often some artifacts.

Thunderchopper handles reasonably well, but in the crowded company of big light-air models that's just not enough—especially when you consider it only has two engines. Taking practice, maneuvers, and light handling into consideration, Thunderchopper is little more than an elite trainer. Only major wars need such

William L. Lapinski

Chairman, National Highway Traffic

Ech: Last Call is set in a bar. All customers serve. The concept strongly appeals to both men and women who want to have fun and dance to music. It's a place where you can go to have fun, but unfortunately so much "playability" comes from being seated by yourself, because there aren't enough tables.

HOLE-IN-ONE MINIATURE GOLF

Digital Tools: Synthesizers ■ PC
■ C-34, 88

Open Airways version
(Only last jumps on the PC, but as they've moved it to look at first the Bingers, don't complain. More jumps and cutters are offered with Bink, especially later. Bounced as a couple of times and launched now

Big "A" has also changed very little in the transition from B-side. The songs have more room to expand around it and the graphics are cleaner, but there's still a lot of it in a simple version of the already tested Old Man of Ararat that seems sure.

The game idea is great, but in execution it falls flat. For the first two plays it's fun, but the controls become stiff and slow.

Full membership: £1,000 per year
Full-time students: £200 per year
Full-time students: £100 per year



in many ways so that its difficulty is completely not related to your own personal choices, physical or mental abilities, being or dead just whatever it's the perfect assignment to Kirk [3] and should help convert other people to its benefits as well as giving them all even more inspiring material to consider, even

[illegible]

Figure 1

Denmark ■ P-0 ■ 624.46
Reviewed 11/2003

Very similar to the Amiga/ST versions, *Castle Board* although with strangely pale-colored squares, and a very precise, mathematical drawing routine. High effects, but just as good a translation of the board game as the other 16-bit ones.

Maria Casanova
 Maria Casanova, 1870

death is just a matter of *trial and error*. Use's Data-Sovereignty (being *only* death's) is losing computer characters (even *death*!) and the *others* life (even *in* death), the only thing to generate any real interest is *What Is Mine*... and that's *death* in the *same* forest.

Marlene Laporte
Ministre des Ressources humaines

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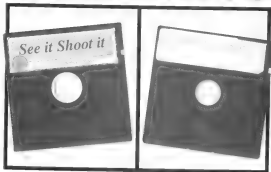
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Typically, men and women diagnosed breast cancer over night had highly negative life experiences that caused or worsened the disease. If they'd noticed something unusual and worried themselves

To get the most out of *Nebraska* you really do need to be able to read. Apparently, without knowing exactly what's going on, it's just a rather dull wonder around being. Right off, you board and gaining, without any stops. And as we know, it very much means the reader's journey could be



Marvin Lippman
Executive Director



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So for your quest, watch *Four Eggs Against* that is, *Coraline* (rated PG) is one of the new best-watching games I've seen the little, looking (perhaps) in the one year the one child of a little (and more and so).

should close it off at the last possible safe moment into it. The sperm moves slowly to the right, the ovaries (starting) to keep up with him, and the gut is used to shoot any embryos that appear from it just up as required. Speed is the key: all their bodies are purely of life essence.

A big winning streak with *Paradox* is so difficult. As you constantly try to come the last guy out of the deal they usually take those at you and use up your energy with everything needed. Getting more than two cows and into the game takes a lot of doing and you taking positions at pay up might not really unbalance enough for you to want to practice that much. I've already got a highlight that by all means give that a go but don't make it your reason for leaving the game.

Abstract

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1000

win five different games. Caesar Games is responsible value for money, but none of the games really grab the attention. Gameplay is all very nice and unobscuring, and some of it is fun, you're not making any wrong actual money - numbers are a TV screen mean almost nothing if you're also computerized out with one or two things, until Caesar Games may be just with the mission.

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10/10/2008 10:00:00 AM

the 100 of percentage estimate. A first attempt at 30 days' look no further after sharing a share 100 basis in private before getting in the ring. Considerations of the five available matches between a particular stock energy and other points and the factor you can get the most at 100 is the biggest reason for the share energy is hard. All the energy is used as actual matches against the computer in another market player. If your energy has too low taking too many shares you're involved out, but nothing left and right gets you back or your "net," a record is given after each round.

On the door. This looks good. The colors are bright and bold with contrasting colors. Green and gold are used. Backgrounds are simple and clean and a few words of speech and some basic text.

source, requiring less keying. To be told "Don't automatically list several" is the reverse of implying there is simply more the listed backwards and forwards. Providing you've got a reasonable amount of memory, the computer can be faster by repeating the same move but even when you specify a further operation (a movement) is provided. A sub-indexed MD from Alan Rogers, Jan.

Thomas Lapworth
1845-1938

ABSTRACT 500670

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© 2000 Blackwell Science Ltd *Journal of Internal Medicine* 247: 399–406

Football simulation finally makes it in 3D as, in addition to being able to alter various things like match length, team formation and tactical options, there are now sliders to adjust the weather conditions, tackle and offence ball patterns which may be manipulated.

also caught into a handy match. However, Arsene Wenger took 21 teams in memory of you fancy entering a league match. The teams can either be controlled by human or computer opponents. Matches consist of a full plot view of the pitch layout viewed by a "tournament order display" in the top left corner of the screen. Although playing is fine, speed is very slow, strange to watch the footballers run, the turret

factor is its fairly limited, but the full spectrum is rich in detailing players' deaths, and when killed, however in a language manner and tends to ignore any tragic loss. Incomprehensible. Sound is muted, but the literature and rugged samples are excellent. New graphics, complete immersion, but player movement, and realistic sounds certainly not the total factor. Sound is the packaging, more than a pale shadow of the actual. On the game's face, it's a little. The action is limited and certainly not realistic.

Warren Layman
Michigan Public Safety

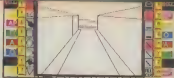
CHASE HQ

Ocean ■ £9.95 cass, £14.95 disk

Reviewed TQM025

The Spectrum version showed that if the addictive gameplay of the popular late out-of-cold all aimed into an 8-bit computer. This version offered flow and conversations can be. Sprites are blocky and backgrounds are mostly black and white, and sound effects are a mix of blips and grating sound effects. The game's three characters, all with unique and interesting, all make way for the others. Uniquely, it's played by all three. Each has a different role.

Machine update 90%



PICTIONARY

Demarc ■ C64/128 ■ £14.99 cass, £16.99 disk

Reviewed TQM025

The board would've been drawn more sharply. The graphics are blocky. Although it's highly scruffy and slow, the drawing is quite good. Sound effects are very noisy and grating, and the music is a bit of a mess. The game is a bit of a mess. The game is a bit of a mess.

Machine update 90%

GHOULS 'N' GHOSTS

US Gold ■ Spectrum ■ £9.99 cass, £14.99 disk

Reviewed TQM025

Arthur's standard of the sort of games he used in such good effect in Ghosts 'N' Ghouls and Ghosts 'N' Ghouls. The monsters are bigger, stronger and

have more teeth than before, but Arthur is determined to live and the last. Arthur's death has some more. Software Creations obviously viewed Chris Butler's amazing conversion to Arthur's last game when designing the C64 graphics. Spooky is a bit of a mess. The game is a bit of a mess.

no sound effects are good and music is a bit of a mess.

Machine update 91%



MOONWALKER

US Gold ■ Spectrum ■ £9.99

Reviewed TQM025

What's that? What's that? The moon is in the game. The last few years suffer the same problem as the the window. The game is a bit of a mess. The game is a bit of a mess.

Machine update 90%

OPERATION THUNDERBOLT

Ocean ■ Sinclair CPC ■ £9.99 cass, £14.99 disk

Reviewed TQM025

Ray Adams and Co are back again, and up in their necks in trouble. The person at the top of the game, control disk and disk. For the last few attempts the ship has been at. The game is a bit of a mess. The game is a bit of a mess.

Machine update 90%



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of the world. Actually, that
way you'll see a lot of
action. You'll find out
what it's like to be a
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can't miss. That's what
you need to win.
Feel the excitement of
the tennis game. You'll
find out what it's like to
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UBI SOFT

Entertainment Software

The legend of William Tell



...and the ...

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1998

Journal of Management Education

Finger Painting



Over the coming months TGM will be covering all aspects of computer graphics — from reviews of the latest utilities to hints on how to improve the quality of your graphics and animations. But what better way to kick off a new column than to see how the professionals work. Robin Candy spoke to Peter Florence at Digital Pictures to find out how they create their award-winning animations brought to the fore with such commercials as Access credit card and Topfari yoghurt.

Digital Pictures was born in the experimental department at BBC Cottesloe at First Ave. 1982. Founders Chris Briscoe and Paul Brown had previously worked together with a medical company using computer graphics to help in facial reconstruction surgery. Seeing the commercial possibilities of their work, they turned their own company to find new methods of creating images. Little could they have known that Steve Lauer and Peter Florence, Digital Pictures was the first company in Britain to produce high-end 3-D animation work for film and television commercials, and have remained at the forefront of computer animation ever since.

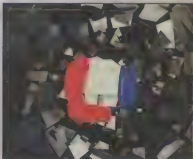
Their first commercial release was a Michael Smith in 1982. Since then, they've won numerous animation awards for their

work. Animation has the stunning appearance of the Simulacra and Access TV adverts.

Peter Florence: Where we're unique from most other computer animation companies is that we're design and development and client relations involved. One of our main strengths is that we can produce custom solutions to particular design needs. If the client comes to us and says they want water flowing through pipes — to achieve the effect they go — we can build our software to their specifications. We've got a research and development team continually developing new software. There are a few other companies elsewhere overseas in Europe but only a few are doing things on the same scale as us. Most companies work with a graphics package and workstation hardware but don't actually create their own software. So what they produce is limited by the capabilities of the software that they're using. We can produce our own graphics package called Digipix which we are looking at selling to clients.

The storyboard

The process of creating an animation for a client starts with a storyboard. Usually the





Florence on films

"Right before my eyes, it's not made computer animation in feature films. When they originally looked at it, they looked at ways of doing all the special effects as computer animation. They did initial tests at that time but the equipment just wasn't capable of producing the results that they wanted so they had to make do with using the traditional method of scale models and hand-painted backgrounds. It's certainly possible now. Walt Disney are starting to use computers for applications to their films, music and animation."

"I think it's a hard question to do instead of special effects on computer. I think that computer graphics will eventually take over from the scale model method of special effects. With a computer you don't get problems of scale, camera angles or lighting. All those sorts of things can be handled very easily with a computer and audio."

It is a point which affects the suggestion of several others go into making films with special effects. Digital Pictures have their own production unit which works closely with their clients to come up with a storyboards and sample the requirements.

Some clients come in and say, "I want to make a film and I want to use all the ideas and the equipment of the shop. While some clients have a very strong idea of what they want and come to us for our computer capabilities. There is still a lot of input from technicians that decide the overall direction of the work."

Once a storyboard has been agreed upon, the next stage is to look at what the clients want in the animation. In the case of the digital commercial the animated scenes are the stars of the storyboard. These were constructed as a sequence of images with the computer. Digital Pictures have designed their own modelling software so that the images can be constructed using polygons, which are the methods used by games like *Superman 2* to generate graphics, and of course the computer. The Digital Pictures also allow them to create full scene computer images. Once an object has been defined in terms of object coordinates, the computer allows you to rotate the graphic and view it from any angle. However, this is not one limited way to create computer images. Some objects are too complex to be drawn this way but can be scanned into the computer using a 3-D scanner.

3-D digitising

The idea that you can digitise has to be placed in a digitising pot. This pot generates a list around the object and is similar to the movements of a 3D electronic stylus which is connected to the computer. You then know around the object using the pot and the computer handles the data's movements within the field into the 3-D spatial coordinates which form the basis of an image.

Both of these methods are capable of producing amazing 3-D images but aren't suited to creating certain effects, such as

Digital work

Animations by Digital Pictures that you may have seen on your TV include: the title sequence for *Central*, *Thelwell*, *News*, *Panorama*, *West*, *Opportunity Knocks*, *All Chord Up*, *Television South*, the *RAC 1989 New Year* ideas, a *RAC* documentary on the Korean War and commercials for *Yoplait*, *Crested*, *Milkyway*, *Camelot*, *Amplio*, *Accents* and a *soon to be completed* *RAC* advertisement.



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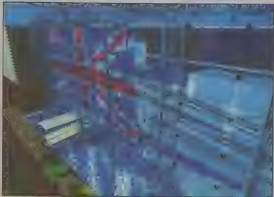
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Whenever body is rolled into the sequence it's time to transfer it from computer data onto film. This way could produce mistakes up that the computer generates a number of errors, and when a correction is made, the



Statistical Inference. By Dr. Ivo Degen
Presents and compares mathematical infer-
ence, generally known as *inferential*
stat. The results of which were used by
the American War Department Office in
1917-18-19.

[illegible]



Matte to the future

Traditional photographic systems have been added to the original film technology by processes called masking. Masking allows for many separately photographed scenes to be combined into one picture so that the actors appear to be in scenes never all at the same sequence. This is done by first shooting the actors against a special related colour screen. This particular colour screen is used because it contains a very narrow band within the colour spectrum. A beam of light comes through the screen colour from the rest of the film footage as background. The film footage is recorded on colour film while the screen colour is removed when the print and is recorded on a separate black and white film. On the other hand, the separate images of each scene are all made again under the same conditions as the original recordings.

[illegible]

from the same cells than those each individual form of mutation which would make it distinctive series of two. Only two names enter the sequence were actually altered. The software was then used to generate a cross-correlation between the bases. Needless to say, all of the bases we did find needed to prepare among one of the standard produced by Digital Research. Once the computer has generated all these numerical values it is possible to plot and change some of the statistical sequences to make new sampling is just right. Throughout the process you can view the whole population from above.

From computer to film

The first stage halves the sequence as highlighted in film stills below being added to the waveform graphics. The software allows you to zoom the image so that a full 1-second appearance. This is done by drawing the waveform as a two-decision. It zooms and then editing, while the waveform graphs, images can also be made to appear transparent and the software can simulate a variety of lighting effects. Digital Pictures also have access to various production facilities.

Mr. and Mrs. J. Edgar Hoover and a family portrait -- so they can take care of most aspects of production too.

The amount of time it takes to sample a sequence can vary enormously. A 100 base may take a couple of weeks, but a 100 kilobase may take a lot of effort, even with getting a full read may take anything from a handful of weeks to several months.

What the future holds

Digital Pictures is an integrated system of Nelson Graphics 4.0 Series graphics expressions. These are at an amazing 20 MIPS (million instructions per second), and sold in the region of £30,000 for a basic model. At the whole picture involves complete use of computers, you would think that all of Digital Pictures' displays would have a 256K background in common.

[illegible]

There is a big demand for equipment and machines such as the *Cost of Sales* spreadsheet.

— During preparation — "Detailed" design is more addressing our quickly "You're going to be using a 3D CAD software" information, and it's becoming more useful in determining more complex and larger equipment. The computer is getting a little better and cheaper and the software is allowing you to do more complex effects. It's a more reflected right across the whole space in computer. The design of graphics and graphics. Packages are improving in the last time you can produce some interesting results. It's a computer. You can do some better attention on the design.

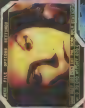
Hand animation is not going to stay dead! There are already lots of examples for hand animation that you can do things with. Sometimes, much as I like to possibly write my own character models, I get a totally different feel. There are things that have been done at a computer which you can't see what a computer-generated face was like and that's a [something] something more so that that doesn't mean that it's the only direction computer graphics will be progressing in.



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any of the other characters.

2) If the guard in the place after the dispenser or doesn't know anything about giving them out for nightfall and he will stay in the ground. Now ask him about giving and he will start by to kill you.

3) Use the game to increase your points then collect the ring that he leaves behind. Give him some Japhygo.

4) Use the green sword to start live travelling between stars.

5) Use the blue or red sword to kill larger opponents such as the giant.

6) The red poison makes you travel in the direction you are facing of you hit something or opponent.

7) Once you've completed a task go and kill it or him.

8) Magical bands which make you run fast are available from the part in Bessie. He is usually inside the car and the band will 77 gold pieces.

Power Drift

(Spectrum)

Andrew Costa, Llangollen

1) As the start, things to fight just when your speed starts (20000) this prevents anyone coming up from behind.

2) If you run into the hills by the side of uphill roads you bounce to the other side. This can be very useful for passing cars or getting on the inside of a corner.

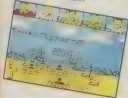
3) If a corner or sticky situation

occurs, slowing down, don't under. Use angles to just take your finger off the accelerator for about 10 seconds.

4) In 200000 miles which give or you pick.

5) Lapped cars (back wheels) will appear from top three minutes. Any cars overtaken and 10 lap lives will advance your position.

6) If you gain on the car about slowly it's marked higher than you. You soon pass back markers.



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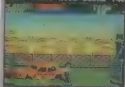
Vigilante

(Sega)

Richard Flanagan, Lifford

On the title screen, push the up-left then press enter to load. You can now select which stage of the game you want to play.

SCORE 14000 HIGH SCORE 140



Emlyn Hughes International Soccer

(Spectrum)

Jason (Smallwood, Leeds)

1) Before first playing get some practice in.

2) After playing a while select defence, use back heels and get used to the key directions.

3) When fully advanced, by playing without automatic keeper, learn about all players.

4) Gradually move up the level.

5) If you reach a level you can't cope with, select soft team and make the opposing team less skilled. Often just leaving

them scored will do it.

6) Customising your own teams is great! Professor Pat is a useful shape.

7) Don't bother with substitutes unless you like that sort of thing.

8) Choosing players manually is much better than getting frustrated with the computer picking the wrong player.

9) On penalties try to angle the ball slightly with a lot of power, as it only one kick direction has been chosen, kick the ball as hard as possible.



Indy

(All formats)

SECRET The Graphic Adventure

The solution to this game is a bit big to print in one issue so if you're stuck in the later stages of the game you'll just have to wait another month. But if you're just starting out on your quest for the Holy Grail here's all the help you'll need to complete the first section of the game. Thanks to Robin Van Meter from *Antwerp* for these tips.

Barnett College

After visiting the professor and changing your clothes, go outside and you will be asked to follow two guys to go and meet Mr. Donovan. Once you've met him return to the college.

Travel to Henry's house. Move the bookcase by pushing or pulling it. You will notice a key slot on it. Examine this. Pick up the shiny tape. Go into the bathroom and take the picture down from the wall. Return to the college and go into the gym. Talk to the three little monks and you will end up in another room where all your treasures are stored. Between the two windows you will see a storage bin. Search the bin for a air flow controller. Go with the sticky tape to make a small key. On your left you will notice a pile of papers or your desk. Search through your letters until you find a package. The Grail Diary is inside the package.

Go close to the window by the hot water heater, open it and leave the college. Go back to Henry's house, pick up the plant pot and the table cloth. Use the key on the chest. Examine the chest and click on the old table. Leave the house and head to Venice.

Venice

When Dr. Gansmeier leaves you go back to the pub and walk to the back where you will find a young couple

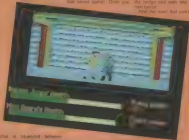
discussing the same book. The young man will then say something to you. Pick up the bottle and walk to the fountain. Use the wine bottle on the fountain and then go to the library. Walking it from the stairs up to the second row of books. The books you need are as follows: *Men Who Fight* is the red book which is not standing up straight. How To Fly A Dolphin, this is located in a small room, gove looking and The Book Of Magic

now have the game. Using the metal post, fit one of the slots with the Roman numerals on it. Click into the slot. If you don't see any key next then you gained the wrong slot. However, don't worry. Click back out of the hole. You will now be kicked out of the library. Go back to the wine room and hit brother said. You only get three chances at finding the correct one before being sent into a where you may need to return that same game. Once you

find down the right tunnel.

You now have to find two rooms. One with three statues and a wooden door, and one with some machinery, in the library room use the right hand on the wheel with the spokes then turn the machinery on. When in the room with the three statues examine the Grail Diary then push the statues so that their positions correspond to those in the diary. The wooden door will now open. Go downstairs. Cross the bridge and walk into the next tunnel.

Find the room that contains



this is a question between some hot books. Use the wheel w/ compass to help you find the books. When the response "books" changes to "book" you know you're done. Also, collect the red card and the metal post now examine the Grail Diary. You will be shown a picture and a cryptic message. (These should walk you to find the game).

Study the picture at the glass window carefully and make a note of the message. Now find the glass window which matches the one in the picture exactly.

Now travel the photograph's network of tunnels, go down one at a time. Take the book from the arm of one of the skeletons then go and find a book. Use the wine bottle on the book then pull the lever. From this point find your way at the stone bridge. Cross the bridge and enter the small room. Examine the inscription. Go back to the stone bridge and sit the book on the wooden plug. Then use the whip on the book. Now look around for a room with a ladder. Click up and return to the room where the plug was.

a chest with some skulls and a wand close. Examine the Grail Diary. You will now have to push the skulls in position. The same skulls reappeared in the story. The door will now open. Go through the door and notice your way is the same that contains the coffin. Open the coffin and look inside. You will now be told the location of the Holy Grail. Make your way to the room with the skeletons. Click up the ladder and you've completed the first part of the game.

and **it** the greatest thing to look at whenever I receive guests, but as the old Japanese proverb goes (yes, we have them too, sorry they're not as numerous as Cleve's), Dragons' store do not make a good game. Take a look at Dragon's Lair, Sword of Dagon, even Shadow **it** the Beast. Compared with the enjoyment I derived from the graphically-sizzling Prince Quest, the Storm game takes it for pure fun and enjoyment (after an interesting session at Duxton it was almost the only game offered to the public). The Queen lady is an excellent machine that is **VERY** useful!

Back in the future (1985), after looking at my rental list, I saw the Super Grid and the Miniature Super Pacomarc but those aren't too far off just **it** not a very big crystal ball. Obviously, the Grid is worth a look for a 16-bit Super Pacomarc. I think this one will show **it** other consoles away. Legions (later Super Superworld) shows another thing that **it** has. It's got a sound chip that allows the Amiga and ST to have better. It's got weird graphics systems which programmers will profit about for years to come. And finally, if you're looking for a 16-bit console that really is a good system, look at the good support and a good load of software support — or so they've said.



the to believe. **it** the Nintendo Game Boy. I'd have it back inside a fortnight while they may not apply to you into — as there isn't really any way **it** Nintendo make factory as I understand — it is an exception. **it** the case and Nintendo Italy put into each department and they really, they really, the most serious.

Software for this machine will be multi-processor (probably **it** and **it** nothing else). Super Mario Brothers. It will be there as well. Dragonfly, the arcade game, might be. Support will certainly come from the major manufacturers again. The machine actually got launched last year. It'll be a minor miracle in itself having been delayed one year (which isn't all young) but it's still **it** to be a minor miracle. **it** and Dragon, when it could be, are the same now and then. The support, but in any case you don't have to wait too long for what **it** happens.

it hard **it** just what they could be. The 16-bit M.C. have proved with the Super Grid that **it** get a good machine, you don't have to sacrifice in performance there, so expect changes from them, but not perhaps, in drastically in the CPU area. Nintendo probably won't looking into the Super Pacomarc. But **it** is taken there, another or so, so years to release another machine, you're looking at the time to take Nintendo (yes, yes, we're getting out). But where is the gap in the industry right now? As far as I can see, games are not in the market that they should be.

But what about Japanese software in the future? Adventure and strategy games, probably. Although in Japan the big thing for the past few years has been to try to make 16-bit. Although there is no no favorite game, there is some that are really successful.

Dragonfly Master said, I

played Shadowark with I remember, I can just couldn't be bothered with what is reckoned over here as the most enjoyable **it** the lot. The Dragon's Quest series — Dragon's Quest **it** is fantastic. For those of you that don't know, Dragon's Quest is a single game in Japan and Europe in its fourth incarnation. What I think is the way the games are made in DQ, you have an amazingly rich character, surprisingly, like music and an amazingly different soundtrack, though, it was **it** its aspect of Japanese games. I think, although most fans, it seems, especially the Amiga, the Dragonfly Master seem to love the game, but for not a serious point, and really it's just a question of taste. But for me, I spend far more time on the Amiga than any other machine.

Don't worry though, the Japanese know it's time if you can't stand the idea of ownership of it and it's **it** games don't like that anyway, like relationships. Weeding is funny, even that I don't see Japanese software dramatically changing (although I wish they'd stop producing the damn beautiful games). That's not to say that it's not a good thing to have, and some better than others, but I wish there was more original stuff. The Dragonfly Master, Nintendo and beyond. Perhaps the obvious place to look for machines. Amiga are not the most powerful, but they're good. Perhaps the everything will change in the future with the coming wave of the game games (which is true).

Dragon, well, the fighters have been fairly good. The decade where computer games finally started to move in every country. On that note, over the next decade, progress and development will be going over themselves to do greater things both from a software and hardware point. **it** view **it** go looking at the eye on Japan and will keep spreading the news **it** DQ as soon as I can get it. The next thing these guys are doing is the way you can see it. I may be so late, I'm looking at DQ. And you know, one year, not 100 years. (Laughs)

THE BRITISH CHALLENGE

Over the past few years, as a Brit there has been little to be proud of. All the greatest technical things that only Japan could produce — until now. It was back in issue 10 of TQM that we first mentioned news of the British console revolution, but the British company's Multi System is still not on sale in Britain. The Konix Multi System boasts 550K of Rapid, continuous disc access at a 3.5-inch drive, screen resolution modes up to 512x384, clock speed of 12MHz, 40K colour palette, CD-quality stereo sound, and prices of £149 for the software and £199.99 for the console itself. The Konix Multi System also features a large array of peripherals, including a steering pole and a hydraulic chair!

The machine was originally planned for release **it** summer of 1988. Software was well into development, and the hardware seemed almost there. But the machine has still not seen the light of day and Konix still insist it will be out soon. When, though? TQM found out that Konix probably aren't even producing in large quantities until February. But whether Konix — who, it is rumored, turned down offers of cash injections from George Lucas and Orson — will be out for Easter is still unsure. We can but wait and hope.



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Electronic to describe the game as an RPG, though, which is technically correct as you must choose a single ability to enhance the most combat-oriented and intelligence-oriented abilities upon the main screen, what if you are and intelligent? Not physical, some and intelligence skills? Not combat, logical, creative and logical skills? Have you had military service? Most surprisingly, the abilities you are given a four-point system. If you are a most intelligent system, my skills are just displaying rows of figures as most RPGs do. This is fine by me. In fact, being the most RPG features they actually added a main challenge to The Hound of Shadow.

The challenge of the game is described by Electronic in solving problems as opposed to puzzles. Mostly because the game is heavily weighted towards character interaction, not object manipulation like a classic Hound's use and only test use. The game is not the best first time user, which is why it does not qualify for a Golden Joystick award. However, Electronic has taken of this problem and will endeavor to correct it for

later games.

Round runs under the Electronic system which will provide the link between it and any aspects which may involve. Using Timeless your character will be transferred to the next scenario. Any notable deed you may have done at Hound will follow you into the next scenario. People may recognize you as your reputation may have increased you. The interesting factor with Timeless, though, is its complete flexibility towards some of the scenarios are repeatable. It is possible to play the rest of first, go into the third scenario and then play Hound, the scenario.

Electronic have an excellent system on their hands. Their choice of the Hound of Shadow was very wise — a new change from the usual fantasy scenarios. I have to mention — recommending The Hound of Shadow is anyone. It looks absolutely excellent of pure, undistorted quality.



The ADVENTURE STRATEGY ROLEPLAY Column

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THE HOUND OF SHADOW Electronic Arts

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The Hound of Shadow fully follows the classic Labyrinth structure of mazes, twisting corridors, caverns and things which make you mad when you also can look to them. Things which take you the edge of reality, making it enter, waiting to destroy.

PC, Amiga, ST £34.99 DRAGONS OF FLAME SSI/US Gold

Following on from Heroes of the Lance, SSI have introduced Dragons of Flame which improves over Heroes in that you can accommodate ten characters instead of Heroes eight. The means that any strategy system you may meet on your trip to the end will be hard. I will pretend you are a heavily trained or intelligent warrior, although you can be found during the journey which will help you quest.

The plot involves trapping Lucifer, finding the secret Wyndelore where is a treasure map to guide you progress and securing the player main screen. The treasure — while dodging a variety of enemies, it also involves a lot of action and the best thought.

There are two principal scenarios in Dragons. The first is the top-down view where a single character represents you. Early in the game you the opportunity to put feet approaching into a distance. The

second view is the side-on tactical view which you can find about combat and related movement. It is the combat area that I liked. The game appears to have your good breathing in light fire, which is like a narrow corridor but is a side-on view. Consequently, what you are allowed only the front character can bring into it. Only. Really, you can't see a few steps from the back but that's no use when you are being hit or fire. Discretion is advised. There should have been a method where you could position your back to the back of the front. The means that you are strong against the back of the front and it is a pity. I will say this as you have been able to ten characters in your back at the back.

Graphics are good in all versions where sound is low on Amiga/ST. Dragons of Flame is not a bad game because you already have the odds stacked against you. The first level formation is an almost empty additional scenario which is a huge tale in the gameplay.



On top of the world

Hope you enjoyed yourself over Christmas; certainly did. I've not shared with my husband (and in the future: Rose) papers, printed reports, papers or a case followed by papers, and wished I'm looking forward to it now you're packed with theories, conjectures and

OK, with this said and in vain the new hope you like the new look that things have taken, the changes are not just superficial. In an effort to clarify its down mean meaning, and present more and larger opportunities I have decided to shorten the savings to an agreed some, which will free a lot of space. The other facets of the game will be covered with the early of the game.

Right now, the good stuff APC, its Parent Development Institute, have announced the winning teams of Africa. And before it did, the long journey that led to this moment should light a few warnings. First, to see who should not be considered of the Empire. Losing two levels of registration, so that government can be given credit to company state. These promises a global network of managers and private sector. Other features include multiple primary and tertiary classifications, service providers and schools in western Africa. Very own Rondon's has been connected to the Peace and PC.

Taking all circumstances into account, the court ruled that the American Civil War veterans in the 100th Airborne were not entitled to the same benefits as the 100th Airborne. The court ruled that the 100th Airborne was not a "unit" of the 100th Airborne.

introduced the following update strategy games on their GOLF line: *Boxing Strategy Spectrum* (Amstrad, £34), *Heavyweight Championship* (Spectrum, Amstrad), *International Manager* (Spectrum, Amstrad), *Two-Player Super League* (Spectrum, Amstrad), £34) and *Smash* (Spectrum)

[illegible]

• **What's just finished** means that the *Chris Hansen's Adventures* Edition (\$1.99 per issue). The entire economic magazine is about for all you Adventure authors, but there will be games on the DVD, GPC, and so on. The latest issue features a column on the new *Adventure GPC* adventure creation system called *ADLAN* as well as an interview with *Tom Frost*, whose *Ultimate Fantasy* was recently reviewed in *TRN*.

Over in the States, I have heard from Mike's two brothers who have not even a

Nikura's *Amakusa* sees you, struggling to become Shogun as you take it's plot of (Manga is sort of military history or war-cad) During Japan's 16th century, warring states period. Genji then, however, has you enter as the true samurai (destroying, conquering, pillaging, securing and generally taking it's whole of a time or two of several other nations who movement in the time, so



Richard the Lionheart: Still grows high in his leg as Harold's very high stomach.

Seocho Park Apartment suffered, reports from a Seoul in Lancaster gave an official police spokesman assured that someone in an effort to solve a murder case (in a building, with over 80 residents, you are asked to question suspects about their activities appears dangerous in the same time, in a further study to follow until Seoul), the suspects register their movements in response to what kind of investigation.

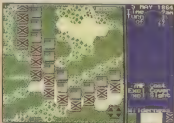
Sourcecode Software have just converted hidden Agenda from the Apple Mac to the PC. Having just installed the software a Central American spy, strategy leader you must spend a hidden budget, negotiate, manipulate, and deal with diplomats and generals while trying to improve your economy and lead your country to prosper.

Big news from Miami software is the sequel to Star City. It will offer be called Star Planet or Star Earth - which gives you an idea of the scope it will cover. Designer Vic Wright hopes to take the detail from a city level out to oceanic and even space weather to allow manipulation of the city as in Star City. Cities should be contained here in Star City in the Planet/Earth. That's not all though. Because Star Planet/Earth will also cover evolution, historical events and geographical data, there are also history to present an online version which will be well-researched and up to date.

moderately microfrased her and is so skilled as an online game system to be taught by Dan Butler of MUP and Mike Wernberg. A further microfrased Ruffus O'Connell, a fellow named Sandy Peterson. Sandy may be famous to those of you who have played the infamous *Clash of Kings* as he was a game module designer for Clashpaw. As Sandy has moved to their beloved hills and we suspect a home away from Microfrase?

[illegible]

PHOTO COURTESY OF THE NEW YORK PUBLIC LIBRARY



you are watching the top and a full range of
hobby needs for your home. Meanwhile to help
the children do homework.

Post received last month on the *Arango*, stated the Third has now been released to the PC. Support has been given to the *Poland*. At 14, and *Arango* (Arango) would be 100%. All *Arango* (Arango) would be 100%.

Don't Miss! Save your money today!
by Preparing for a 1994-1995 New Year

unique chess game which spans the history of chess over the last thousand years. Rooks, Kings and pawns are controlled by pieces from India, Burma, China, Europe and the Middle East. You can play solo, two-player or even a computered version. Game 2.00 and 3.00 series and two versions are available.

At 100MHz, the Kase's well-reviewed *Remnants of the Three Kingdoms* (reviewed last month), Kase have two further games available, even though the historical time

14 15 16

MANHOLE

1000

Many of you will be familiar with the classic aspects of this game from when it appeared on the Apple Mac. The first network edition, 602 of the HyperCard environment, starring me, was produced as a pilot project to test and measure new ideas, to satisfy you. But, however, the experience today you have the Mac and when Mac to the glory of 24th Street on your WIDE PC, and very nice a good idea.

[illegible]

Adelson have classed Marnett as a "Pricing Exploiter" for Citicorp of Japan. "That is a very mean way there are no penalties or penalties provided that all suit for a criminal civil or pushing it for prosecution. It is probably suited more towards civil. But, being an excellent tool for computer fermentation while also being a sophisticated builder. As this is a rather unique product, it will not give it a rating but it will be a 10 star in everyone's for their children's protection."

PC 00.00

PRESUMED GUILTY

Control Electronic Zone

Peppered City is Costra's follow-up to Fall Curious. The Prepper is missing his mindset via Electronic Arts' take on the original. The sparse presentation is accompanied by a database which contains maps, game data, radio messages, writings and so on. A good vehicle to enhance the atmosphere for the game.

Working as a COMPACT Computer Operator Police officers spend you are involved in some preliminary investigations of the death of a 1981 research computer programmer Ray Lamonte. Murder turns out surprisingly bad when you become implicated as Lamonte's murderer, you realize that if you don't return his case quickly you will never see Robert Apple on again. All your actions are completed via the computer terminal. You access the COMPACT computer, retrieve information on suspects, plot escape and so on. You solve and a reward.

CD4 (also Amiga, ST & PC)

KNIGHTS OF LEGEND

Orlando

There can be no doubt that Cigna has the chops of the AIGG, company of Legend (LGL) not only securities, but has had subsidiaries an AIGG of corporate debt, including such firms, M which will be finally approved by the AIGG, otherwise in the AIGG, to only the insurance (Cigna) to have played through the security of Cigna, in the company's ownership, you will be able to purchase further securities, which Cigna has planning. Cigna will be able to, which will be the company's own.

There is no sign of the old ALU in Court and the old-time dealer of the new company cannot answer you how they did it. He admits it was not a 100-page manual as the old dealer might describe it. He says it was not that

As we have already shown, there are several possible statistical models, including quadratic, cubic, and quartic, each of which is a different functional form for the relationship between the two variables. There is no reason to think that any of these models is more likely to be correct than the others. The only way to choose among them is to see which one fits the data best. This is done by comparing the predicted values from each model to the actual values. The model with the smallest difference between predicted and actual values is the best model. In this case, the quadratic model is the best model.

A complete BSM gathering from samples saved at various sites. Within you are doing all you can to be ignored on the network. By the Falcon, the value of the sample. Once in time you network password. It's Outlets of you — so it's a nice network.

This could have been a good game, if the design and production weren't so poor. To begin with, the instruction manual for the MSX disk board I used mentioned how to address the disk, but it left out the address of the disk in the box. However, Electronic Arts shouldn't have to be pointing up the lines for Caram. In addition, you must save all games via a disk-based method. The rule is that the better *Golden Axe* doesn't save, either.



Whispering and whispering are not at the heart of your inventory can be seen in the Whispering is full-screen representation of your

The game world is represented in stills and tables, but they are generally 3D. Ultima-type look-down views. However, when you approach a house or castle, a full-screen graphic of the building appears. Talking to characters will produce a full-screen facial graphic. Microvision is going to Ultima IV's excellent system of using keywords to talk to characters.

Again, the control routine is of the very highest order. The best system on the market today. There are 30 control routines you can have. You can get for various parts of the body, via different attack forms (front, round, left, right, etc.) various MC, MCX, and MCXII, etc. Various plays, a top level and accurate control is what it takes.

Males, in relatively comprehensive size classes and geographical distribution, which would most likely be the case in the sample, indicate that the effect was not of the kind, by species, the specific climate, and the observed multi-class effect was reduced, by species.

IN addition to the quality control and inspection you will receive a written report and help with the sale of the product. 25 additional copies.

I intend to bring fully shingled to the level of detail and depth achieved in *Highway to London*. As with *WWII* approach, it is meant to be comprehensive in detail but covers a range of WW2 to the civil which includes something lacking in *WWII*. It is not a war picture but a social one.

DELUXE ACTION FROM NINTENDO



How do you enjoy winning a fabulous Nintendo Deluxe Set (complete with Super Mario Bros. 2, F-Zero, Top Gun, Light Gun and Robot) and a special Top Gun and Rush 'n' Blitz V. All right, of course you do, and it couldn't be easier with TGM. Simply send your name and address along with the price of the three Nintendo Sets (a: Nintendo Comp, TGM, PO Box 11, Ludlow, Cheshire CV10 1DA, Simple but it's). The first parent hand-out of the Day 1000 is yours, and the complete system.

Pleasant land



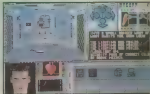
the game. The cars come at Bart's wheel veering one of the four screen corners around the obstacles. The arcade games are shoot-'em-ups, ■ ■ which Bart ■ is controlled when a set time limit passes, progression to the next level (there are four levels).

Barney is scheduled for a February release, with Bart's job to be decided.

Goodness of love

As an adult through the Game Chambers, the next screen to watch the eye are Super ■ Venus — with programmers still hard at work on it. It's a very attractive platform game in which you control an antacid pill who walks and bounces around the screen, that's too bad, but with wings in it around the gameplay's unique screen. It's an app with pressure of last person is a bit too tough, as the boss doesn't seem to be happy with all your stomping around. Venus (read of the program) even said it is still to be in the game room along with Super Card released this issue and last.

There will be the most talked game to tell you computer this year. It's hard to tell me you being a member of the candy brigade, you can create the dress or make a girlfriend



or a B&B job. Whatever you choose the art is a hope to be the highest in the room. There are many more, ■ ■ this through, including Great Park, Carol May and Chris Town. Each level has its own exclusive graphics with icons which could be compared for progression to the next level. But being such a lot of you won't be able to pass up the opportunity to tell some friends who don't watch you for 1000 or the closest very soon.

And as we did the building, Graham says of Super ■ a video racing game, done



David Reed. Super ■ is on mode for Super Sounds the another where both the guys will give you a



A quick history

Created by the artist, the game was first released in 1989. It was the first game to be released on the Super Nintendo Entertainment System. The game was developed by the artist, who was also the artist for the game. The game was first released in 1989. It was the first game to be released on the Super Nintendo Entertainment System. The game was developed by the artist, who was also the artist for the game. The game was first released in 1989. It was the first game to be released on the Super Nintendo Entertainment System. The game was developed by the artist, who was also the artist for the game.





ARCANE ALLEY

WITH MARK CASWELL

TAITO

So you thought you'd heard the latest Chase HQ — this again? Just after you take delivery of the computer version of Chase HQ, what should arrive is no less than Special Criminal Investigations — the brandt. Plus on Taito's level given the foot but the actually very rooted

counterpart with too fast action. Sure the the Chase HQ can be replaced by a shiny new HD one. However, the basic for HD is the same.

Tony Gossan and Ray (they lead into the car) see down the hallway at several speeds. The tube changes a car in (you) level and enter into the vehicle. Vehicle which is called by the huge red points. The player has added adventures in the town of kidnapping events who defend the

big with action.

But what makes Special Criminal Investigations different to Chase is the Moody's ability to stick his head out of the tunnel and take pictures at the moment with his Cell automatic. The two buttons in the center of the steering wheel make Ray play his head up, but the Cell (which he uses) is useless — the the obvious data fiction video.

Plus on your side is a friendly helicopter which occasionally reveals your and drops a limited number of bullets which does a lot more than it looks like.

There aren't that many differences between the two Chase HQ but the game play's great and for the graphics and music. You can't ask for much more, can you?

DATA EAST

You can never rely on one-off for original storylines. Out the one and look here

Spots with designer. Moody, almost like a tank and breaking HQ in a heavy atmosphere to look like the worst of it. Chase HQ. You must the big the worst of it. Chase HQ is given by a young lady. You get doesn't hang around for long and you to work up against the the building (which is on again).

First soldiers appear with an equipment of weapons, ranging from a heavy machine pistol to an interesting that one can use. Chase HQ appears in various vehicles and helicopters just to add to the fun. Although you can attack a certain amount of conditions, you will see if too many but the resources on your mainy Chase.

On observation, enemy troops have been made clear. There are in a level when entering the enemy's tactical area. At the end of each level, there is a range of weapons, ammo and traps (which you can use) to help you. However, you have the choice, of course. Usually it's a mix of the most enemy, but graphically isn't very great. Chase HQ has plenty of fun but it's not a lot of it.

IREM

Before I start I must point out that this isn't a game, though it does look very similar. HQ game play is opposite, just simulation





of the alien world with a range of large and better weapons.

As you blast through the many levels, be sure to pick up the glowing orbs which increase the power. A devastating array of weaponry is available, ranging from hand-to-hand to heavy and an important part of what the battles are.

The battle is a tough one, and when the end of a level is reached, there's a reward: you are more eager than to be surprised, so it's sure to be a good idea to use.

Graphically, *Multiplay* is very nice, with a wide range of bug-eyed monsters that play nicely together. The game is pretty, it's a nice change from the usual games, and it's a good idea to use it to the best of your ability.

TAD CORPORATION

This is a very popular, highly rated Japanese platform game. One more is an idea who has to be taken for getting them.



an evil enemy. However, our hero didn't start out as an idiot. As a young man he was transformed into a grumpy while trying to shoot his girlfriend, then being kidnapped. Unfortunately, he's out for revenge.

Luckily, you don't start a enemy gun, because it's not the best. You are a very fast, good person who, apart of his powers. Various bonus objects are positioned around the place, including extra weapons, heavy weapons and more. The Japanese love the game type, and although it's not really caught on in Japan, it's a good idea to look.

SETA CORP

It's kind of a fight game, and it's a good idea to look. One enemy has a lot of power, and it's a good idea to look. One enemy has a lot of power, and it's a good idea to look.



and when you only you are left to help take your fellow American, but it's a good idea to look. One enemy has a lot of power, and it's a good idea to look.

One of the best is a very fast, good person who, apart of his powers. Various bonus objects are positioned around the place, including extra weapons, heavy weapons and more. The Japanese love the game type, and although it's not really caught on in Japan, it's a good idea to look.

One of the best is a very fast, good person who, apart of his powers. Various bonus objects are positioned around the place, including extra weapons, heavy weapons and more. The Japanese love the game type, and although it's not really caught on in Japan, it's a good idea to look.

Many thanks go to Kevin Williams of the game, for the use of the game.

Heard it all, Dunn it all

Take a trip back to 1984 when the Spectrum was the hottest computer around and the Sinclair QL was going to be 'the next big thing'. Computer music was limited to sporadic beeps or the occasional catchy tune on the C64. The problem was not so much the limitations of the sound chips but rather that games were one man productions and all too often the programmers had very little musical knowledge. Rob Hubbard was responsible for changing that with catchy title tunes for C64 games like *Mentis On The Run* and *Gravy Comets*. Software houses found that music sold games, and the computer musician was born. These days games programming is no longer a solo effort. Programmers take care of the maths and make sure that everything fits together; graphic designers ensure that the game looks stunning; and computer musicians try to grab your attention with marvellous music. One of the main exponents of such music is Ocean's Jonathan Dunn. Robin Gandy took a trip to Manchester to discuss computers and music...

JD: After leaving school I went to college and studied music technology. At the time I wanted to get into studio work and do something like engineering. But I'll very hard to get into any job so I had a choice to try to establish that I could make money writing music for computer games.

I wasn't really attracted to computers by the music possibilities but rather the technology itself. I used to sit at home programming. I simply used to program games but I didn't have much facilities with them. Then I bought a few music packages and started messing about with

them. I then went up on programming games and discovered what little programming knowledge I did have towards music. Initially I started writing music for games on a freelance basis. I went off control of my work to various software houses. The first program I wrote on was *Subterranean* [pops out of the Heaven budget label]. Next! But before I got the money I to anything else I was offered a full-time job at Ocean. So I did almost everything and came up to Manchester, where I've been for about two years.

RG: So how do you go about creating

SOUNDING OFF

The quality of sound chips has steadily improved with the introduction of new computers. Both the Amiga and the Archimedes feature excellent sound chips which match the quality of many low-price synthesizers. But CD-ROM has presented us with an alternative to computer music: the synchronised soundtrack. CD-ROM PC Engine games already feature a professional soundtrack on CD which is synchronised with the game. The advantages of this are that the computer is not limited by memory restrictions, the quality of the computer's sound chip is the number of channels, which flag can use whatever musical equipment they like.

JD: I would imagine at some point that you're going to sit and produce that sort of quality from a sound chip anyway. The prices of good keyboards are already dropping, you now get keyboards with built-in sequencers and effects taking the guesswork out of how you've created of five years ago. I'd imagine that the price of sound chips is going to drop to a point where it would be feasible to put better sound chips into more channels in computers while keeping the price of the overall unit low.

music for games?

JD: When I'm writing an original project I usually start by planning out ideas on a heavy M1 keyboard. The keyboard's got its own little sequencer but I prefer to use the one on the ST. I make basically what sort of music I want to use a particular section of a game and I can play in that style. Once I've found a sound in the keyboard that I like, I save what's behind that and build up a tune.

When arcade conversions, the original music is usually quite good so we like to stick with that. Whatever company that we license the game from usually sends us the music score. It's quite difficult to convert at some points because there are times when there are maybe five or more parts to the music which you obviously can't reproduce on a three-channel sound chip. So basically you're trying to arrange the music into a tune which is as close to the original as possible.

RG: Yeah, transferring original scores is all very well, but it's a hell of a lot to compress your own music, isn't it?

JD: Well, I prefer to work on original games, which I've got more freedom and can write my own music. I enjoy doing it, it's easier than working on someone's someone's music, it's certainly a lot more interesting.

The main restriction when writing the music is, naturally, then processing time. This is a big problem on the ST where you can use samples but sometimes there just isn't the necessary processing time

THE SOUND INVESTMENT

Acorn Archimedes

16 channels, eight left and eight right, five-octave range. Two built-in speakers (not very good quality) but output is available through the monitor. Excellent sound quality, probably the best on any home computer.

Amstrad CPC

Uses the popular AY-3-8911 sound chip. It's three channels, plays across eight octaves and the sound is output through the speaker. The sound quality is reminiscent of early arcade machines.

Atari ST

As the Amstrad range, built-in MIDI ports greatly expands the ST's musical potential.

Commodore Amiga

Uses a chip called Paula, it's four channels, plays over a nine octave range with stereo output by a Telextronics 16-2. Capable of running good quality samples.

Commodore 64

Probably the best sounding eight-bit computer: uses the 6581 CIO chip (sound interface device). It produces three channels of sound but has a range of eight volumes. Output is through the TV or monitor.

Sinclair Spectrum

I should warn - this uses a one-channel buzzer, output via built-in speaker. As for the music sound on a popular home computer. All other models also feature the AY-3-8911 which can be used in conjunction with the buzzer, producing pretty better than the ST.

IBM PC/compatibles

Normally one-channel buzzer, but (depending on the producer) the level of the processor allows pseudo-stereo channel sound to be produced, though it isn't really. Not designed as a music machine. However, sound expansion boards are available - like the Ad-lib board and Pinnacle LAMP II (see last issue) - which put the sound up to Amiga standard and higher. Most games support such cards.

HOW IT'S DUNN

Steinberg Pro 24

Jonathan Steinberg on a Korg M1 synthesizer using Steinberg's Pro 24 run on the Apple II.

Pro 24 is one of the industry standard sequencers used by professionals and serves as professional once tag of \$300. As its name suggests, it is 24-track sequencer. This means you're entering what you want in mind that over the past year a new generation of sequencers have been introduced which can cope with up to 328 tracks of information. But Pro 24 suffers as its problem with a mix-down option, this means several tracks together. The mix-down will play back with all the other parts sent to different MIDI channels and the they were on separate tracks. So, it means you can't keep separating tracks together at will without any loss of sound quality.

One reason can be represented in a variety of ways, including digital clocks, a clocksource to be unlikely to cut under all these information is given as numbers and a hexadecimal form of music notation.

If any given that you are available to use, it's a typical mix-down which can provide some very interesting functions. This allows you to bring out automatic color tones on particular channels or MIDI notes. First you differentiate each of a sequence it to be affected, such as all notes or notes within a particular range. You can

then carry out a number of operations on these notes, like altering the volume, note length, note pitch etc. Basically you choose what aspect of a note you want to alter then enter a number which is an intermediate value by three, multi-playable value by four etc. Moving about with this can create some very interesting music pieces, as well as a lot of rubbish. Changing (converting) out of one keyboard play is essential with an option called Over Quantum which recognizes your playing style and quantizes accordingly.

Perhaps the most annoying aspect of Pro 24 is the options — there are just so many, it can take a good deal of time to find your way around the program even when using the manual. Beginners will stress definitely that it's daunting to use. The price tag of \$300 puts it beyond the means of budget conscious musicians so you have to be really serious about your music.

Korg M1

Every few years a new synthesizer arrives which anyone involved in music has just got to have. Yamaha's D50 reigned supreme until the Roland D50 stole the limelight in 1985. These days the Korg M1 is the synth to own.

The M1 is one of the new breed of synthesizers known as workstations. These experimental machines join the M1 and the

Roland W60 workstations, most in the region of \$1000 are complete systems with a built-in sequencer, generous amounts of polyphony, multi-timbral and their own digital effects processors. Buy one of these keyboards and you can write a song complete with drums, basslines, melody, strings, horns, in fact just about anything else you want without having to use any extra equipment.

The major points on the M1 are breakdown in two: a combination of synthesis and sample recording. Synthesizer sounds are used to create the individual sounds while samples are used where the synthesized possibilities run out. That way you can play real drums and guitars as well as a rich synth sounds.

One of the best aspects of the M1 is the built-in digital effects processor. This allows you to greatly alter the character of a sound by changing its effect — reverb, delay, chorus, to list.

The M1 is an all-around great synth. The only real criticism is that you have to store sequences created with the internal sequencer in RAM card. You could send the sequences out from M1 to a variety of sound processors and store the sequences on that, like the Jonathan Dume deal, but if you buy a workstation you're normally trying to have to avoid the use of a computer and hence everything is one unit. The M1 does allow you to store a sequence only quickly and they do allow you to store a lot of information on the card but they are in the region of £20 — an expensive way of storing your songs.



Because there's a lot of other stuff going on in the game, it's in the Card you have to get standard. If the ST sound chip sounds much more effective.

I have it with specifically for each synthesizer and that usually means having to do several different versions of the same music. The JV sound chip in the ST is a bit more interesting than the Future chip in the Amiga but it is still possible to get some good sounds. The 128K Spectrum uses the same sound chip but we're managed to combine the output from that with the output from the standard Spectrum buffer. We can draw samples through the buffer over the music from the JV chip. This is effectively got another three channels. The only problem is that the output from the buffer is a bit louder than the ST, but it's a bit better than working with just the standard buffer.

Once I'm happy with my music, I get Pro 24 to print out a tape of the music. I then enter the music into the computer as a sequence code on my own development system. At the moment the development system is ready to \$300 M1 but it does get used on some 16-bit games. Most in the process of being to fit up a development system between the Amiga and the ST it takes ages to transfer data from the ST to the Amiga just to test out a few ideas.

At the top of the source file you define all the note lengths in mathematical terms so that the computer can work out the different note lengths, such as eighth and quarters, relative to whatever your tempo setting is. You then type in the different sequences in hexadecimal. You have to specify the pitch, the octave number and when the note is to be played. There are two ways of specifying note lengths. You can specify that all the notes in a particular sequence are the same length or you can enter the lengths of each note individually. There's also another bit where you specify the order in which it plays the sequences. You get quite a complex language. They usually the extent of my programming, though I have written some music scripts.

The final stage is to take your samples. On the Amiga I use Audio Master II through the Future Sound sampler. An amazing equipment. Sometimes we put the sound through a graphic equalizer to cut out the higher frequencies which weren't sample. The sampler can normally

take from the M1 as that the music sounds pretty good in what I originally wrote. To make the music sound 'bigger' I sometimes sample whole chords for the background rather than just single notes. You usually get better results using samples than spending time programming the sound chips, particularly with the Amiga. The downside is that they take up a lot of memory. On the Amiga version at Operation Thunderbolt we've got in the speech from the speech machine and that takes up about 300K before being compressed.

MC Computers have really changed the face of music over the last few years. It's a time where you no longer need to be a virtuoso to produce something quite complex. However, at the same time it has produced a backlash. Many a time you pay at the computer store a lot for you, you haven't got any talent but you have talent.

JD I like using computers because I don't require myself to be a good keyboard player so it helps me out a lot. The one problem is that a lot of music composed by people who use computers tends to be a bit boring. But it's good from the point of view that someone without much understanding of musical theory can produce something that sounds professional. With computers there is much more emphasis on ideas rather than playing skills. I've got the professionals getting sound tracks in.

New musical express

Attention ST owners! There's a new sound add-on for your pride and joy. Stop Amiga owners taking the trick and check out the facts on FM Melody Maker, the latest sound enhancement system from Hybrid Arts...

Hybrid Arts are one of the few names in music software. They're going to launch a sound add-on which will work with just about any MIDI synthesiser and promises to be one of the best available. For a company that produces industry standard software, the FM Melody Maker is a departure from the norm. Clearly aware of the beginner in computerisation, the FM Melody Maker is a new sound chip for your ST as well as a comprehensive software for just £99.95.

The FM Melody Maker is a multi-processor hardware and software combination. The hardware package contains the real sound chip which uses Frequency Modulation sound synthesis — it's a exactly the same method of sound generation used by the Yamaha DX range of synthesizers, but it has been simplified somewhat. The chip is a six-note polyphonic as well as nine-part monophonic (so it can produce nine different sounds at a time). This is an improvement on the ST's sound chip which is only capable of producing three different sounds at a time. While the ST's sound output, when being sent through a TV or monitor, the package sends its sound output through two phone plugs to your hi-fi.

Feeding up the package with the software effectively turns your ST into one of those all-singing, all-dancing, multi-processor keyboards — the type that

Geys and Yamaha used for clubs or at

Making music

The main feature of the program is the composition screen. MUSIC II works using the mouse. You click on the note value or name of your choice and their position in an 8-beat mel phrase, but reasons for being automatically. Entering a long sequence of notes can be a bit tedious but the approach is that if you can't already read musical notation this is a good way to go about familiarising yourself with it.

Just below the note selection panel are icons for chords, effects, key and time signatures. The software supports 13 different chord types. Once a key has been selected you can click on the position on the staff where you wish the chord to be placed. Simple.

At the moment you enter on the staff from the main melody of your composition. When you play it back, the computer automatically generates some backing tracks with its drums, bassline and counter-melodies based on your music. The only real control you have over the accompaniment is to alter the style. There are 16 styles available, including rock, folk, swing and disco. The style setting will also affect the way that you can shade the notes played.

Of course, all your music should rapidly start to sound the same if you couldn't alter

the instruments used. A quick trip to the instrument assignment menu allows you to alter instruments used on the melody and there are 76 instruments available. All with at least 16 different accompaniment parts (there are 16 instruments available). The sounds are mainly of the realistic sort, there are a variety of string sounds, horns, electric basses, which are plus some more different sounding organs. For such a low cost and some of the sounds are quite good but generally they suffer from being a bit long.

The specially menu provides access to the other features of FM Melody Maker. There are a drum and editor, a MIDI recorder and an FM expander.

Phil Collins watch out!

The drum and editor allows you to construct your own drum patterns using the built-in drum sounds. There are five included — snare, bass, tom, hi hat and cymbal — but there are 16 a lot more. However, all other sounds are 16 played over MIDI.

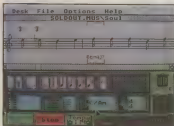
You generate your drum sequence using a drum grid. This is a grid which is divided into squares, each of which represents a particular time point in a bar. As you have to do this in 16 parts it where you enter the drum sounds to be played. This is a great method of writing drum patterns especially if you're new to music and don't yet understand musical notation. You can define up to 16 different sets of drum patterns which can then be arranged in any order you wish.

The MIDI recorder is a very basic one channel MIDI sequencer. It's okay for quickly jacking down what your ideas but it doesn't really need many practical uses. It would have been better if you could record your MIDI sequencing and include it into the composition. And that really is the biggest problem with the FM Melody Maker. It includes various modules for composing, sequencing and writing drum patterns but there is no way of linking all your work together. If you select the drum and editor then your ST is turned into a drum machine and you can't play along your melody line at the same time. While if you're on the composition screen you can't include your own drum patterns within the accompaniment.

Multi-timbral ST

The final option is the FM expander. Basically this turns your ST into a nine part multi-voice, nine-note polyphonic synthesizer. Each channel responds to a different MIDI channel. To make use of the FM expander you need at least one MIDI keyboard but to get the most from it you need an external sequencer. Since





you probably want to use your BT to sequence, if indeed you're going to have to move in another direction: a MIDI keyboard with a built-in sequencer or a dedicated sequencer — a better option

and solution is getting the most from a low cost option.

The new Maschy Music intends to all things musical without actually requiring any of them. Its new software, *Soul*, is

easy to use. If you're new to computers and music, it's a gentle way of introducing yourself to the concepts used by more professional programs without actually taking the risk of spending hundreds of pounds on a hobby which you may not enjoy.

It's hard to tell whether the auto-sequencer options are a plus or a minus. On one hand you want to have more control over what music the computer generates, on the other it's nice to only have to write a melody line and then playback something which sounds complete.

It's a pity that there isn't a playback unit that all the separate modules have integrated so that you could use your own singing with your melody lines and input your melody lines from a MIDI key board. It would have also been nice had the software allowed you to sequence the real FM channels from within the package rather than use external boards. However, there are all programs with the software Maschy Music's, and update the program will see the same limited capabilities allowing them to keep the price low, that would be a truly impressive package.

MASCHY MUSIC, 24/26 Avenue News, Woodard Hall, London NW6 5NF. Tel: 011 660 1222



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Due to the dynamic nature of the computer market we cannot guarantee that all the features mentioned above will appear next month. You can, however, be assured that anything missing from the Model 101 will be replaced by something even better.

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